The Wiley Handbook of Action Research in Education

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The Wiley Handbook of Action Research in Education

Edited by Craig A. Mertler

WILEY Blackwell

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Tom Bourner is Emeritus Professor of Personal and Professional Development at the University of Brighton in the United Kingdom. When he retired from paid work at the university, he was head of research in the Business School and led the Management Development Research Unit. He originally trained as an economist but his research on graduate employment destinations led to a growing interest in higher education outcomes more generally, and then to the learning processes producing those outcomes. He first encountered action learning in the mid-1980s and, afterwards, most of his professional work was influenced by action learning and the values that support it.

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Cheryl Brook is a senior lecturer at the University of Portsmouth in the United Kingdom. Her academic career was preceded by a number of years working as a senior manager and trainer, having worked in the National Health Service, the third sector, and for an independent consultancy prior to moving into higher education. She holds a PhD in management learning from the University of Lancaster. Her doctoral thesis was concerned with the practice and development of action learning in the UK health service. She is on the editorial board of the journal *Action Learning: Research and Practice*.

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Emily F. Calhoun is Director of The Phoenix Alliance. Her major work is helping responsible parties study the effects of curriculum and instruction on student learning and strengthen the learning environment for all. Her research interests include literacy development pre-K-12 along with the use of action research for individual and organizational development. She is the author of *How to Use Action Research in the Self-Renewing School*, *Teaching Beginning Reading and Writing with the Picture Word Inductive Model*, and *Using Data To Assess Your Reading Program*. She is the co-author of *Learning to Teach Inductively, The New Structure of School Improvement, Models of Professional Development*, and *Models of Teaching*.

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Patrick Casselman is an associate professor of mathematics at the State University of New York, College of Technology located in Canton, New York. He received his PhD in education from Northcentral University in August of 2015. His dissertation focused on improving student retention in online courses, and the research methodology he used was participatory action research. He continues seeking ways to improve the experience of students in online courses. Currently, he is developing open source materials for students taking courses in statistics and differential equations.

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Bruce Damons is the Director for the Centre for the Community School (CCS) at Nelson Mandela University in South Africa. The CCS is tasked with developing alternative approaches to school improvement that are relevant and responsive to the contextual realities of under-resourced schools located in working-class communities across South Africa. These alternative approaches are co-constructed through engagement with multiple stakeholders, using a critical participatory action learning and action research approach.

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Bob Dick is an independent scholar, an occasional academic, and a consultant in community and organizational change. In this work he prefers to use highly participative and action-oriented processes. To do so he draws on concepts and processes from action research, action learning, facilitation, and community and

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Debra M. Dosemagen is the Director of the Graduate Program in Education and Education Department Chair at Mount Mary University where she teaches courses on action research, educational psychology, and instructional practices. Prior to that, Deb taught high school mathematics for 23 years and also served as Director of Instruction at the high school level for six years. In 2000, Deb was certified by the National Board for Professional Teaching Standards in the area of Adolescent and Young Adulthood Mathematics. Reports of her own action research have been published in *School Science and Mathematics* and the *69th NCTM Yearbook*.

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Dusty Columbia Embury is an associate professor in special education in the Department of Curriculum and Instruction at Eastern Kentucky University. She is a participatory action researcher interested in collaboration in school settings, both P-12 and higher education. Recent publications address curriculum and safety for students with significant disabilities and frameworks for collaborative teaching. She has also contributed entries in the *Encyclopedia of Action Research*, and a chapter in the *SAGE Handbook of Action Research*. She an associate editor for *Action Research* and supports the website AR+, a virtual community of action researchers sharing research, knowledge, and experiences.

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Jennifer Gleason received Bachelor of Arts degrees in English and linguistics from Florida Atlantic University and a Master of Science degree in applied psychology from Lynn University. Currently, Jennifer is a teacher and Chairperson

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Cher C. Hendricks serves as Vice Provost for Academic Initiatives and Associate Professor of Educational Research at the University of Idaho. She earned her PhD in educational research and measurement from the University of South Carolina. Prior to her work in higher education, Cher was an elementary and middle school special education teacher in Texas and South Carolina. She is author of *Improving Schools through Action Research: A Reflective Practice Approach*, now in its fourth edition.

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Danah Henriksen is Assistant Professor of Leadership and Innovation at Arizona State University. Her research examines creativity, transdisciplinary thinking skills, and design thinking in education. Her work has been published in peer-reviewed journals such as *Teachers College Record* and *Thinking Skills & Creativity*, and practitioner venues such as *Educational Leadership* and *Phi Delta Kappan*. She is Co-Chair of the Creativity Special Interest Group for the Society of Information Technology in Education. Dr. Henriksen has taught on topics in educational psychology, systems change, leadership, and design thinking or creativity in education. More about her work, and her complete vita, are available at http://danah-henriksen.com.

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Andrew Johnson is Professor of Education at Minnesota State University, Mankato. He specializes in literacy instruction for students with intellectual and learning disabilities, RTI (Response to Intervention Model) for reading and writing, strategies for the inclusive classroom, and advanced pedagogy. He received his PhD from the University of Minnesota in literacy instruction and gifted education. He is the author of 12 books and numerous academic articles related to literacy, learning, and the human condition.

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Craig A. Mertler is an associate professor at Arizona State University's Mary Lou Fulton Teachers College. He began his career as a high school biology teacher. He has been an educator for 33 years, 23 of those in higher education and nine as an administrator. He teaches courses focused on the application of action research to promote educator empowerment, school improvement, and job-embedded professional development. He is the author of 10 books (including three books on action research), nine invited book chapters, and 21 refereed journal articles, and is also an engaging speaker. Find out more at www.craigmertler.com.

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Lonnie L. Rowell is a scholar-activist and international authority on action
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Research and an editor for the journal *Educational Action Research*. He recently retired as Professor of Counseling at the University of San Diego. Dr. Rowell was lead organizer of the Action Research Network of the Americas (ARNA) and is President of Social Publishers Foundation, which supports practitioner-based knowledge production and dissemination. He has received numerous awards and recognitions for his work, including McDaniel Foundation Award for Outstanding Contributions to the field of Counseling and ARNA's Eduardo Flores Leadership Award.

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Eileen M. Schwalbach served as the 11th President of Mount Mary University from 2009 until 2017. She began her career at Mount Mary in 1993, progressing in her roles from professor and director of the graduate program in education to Provost and then President. Dr. Schwalbach taught courses related to classroom instruction and teacher research. She is author of the book *Value and Validity in Action Research: A Guidebook for Reflective Practitioners*. She began her career as a teacher in the Milwaukee public school system, where she taught English at Milwaukee Trade and Technical High School.

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Kristin Shealy was an elementary school educator for 13 years, in both public and independent schools, and an instructional coach for two years before becoming Head of Lower School at Pine Crest School in Fort Lauderdale, Florida, where she has been for eight years. Kristin earned a BA in elementary education, an MEd in curriculum and instruction with an emphasis in reading, and a PhD in curriculum and instruction/curriculum, culture, and educational inquiry, all from Florida Atlantic University. Action research as professional development was her research focus and is an area of continued interest and focus as an administrator.

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Douglas M. Stevens, based in Cincinnati, Ohio, teaches English and technology at Hughes STEM High School in addition to action research and qualitative research methods courses at University of Cincinnati and Northern Kentucky

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Ernest (Ernie) Stringer, after an early career as teacher, principal, and lecturer in teacher education, worked with Aboriginal staff of Curtin University's Centre for Aboriginal Studies to develop innovative and highly successful education and community development programs. As visiting professor at universities in New Mexico, Texas, and Oregon he has facilitated action research projects with diverse community groups. He was engaged as education policy consultant by the Australian federal government, and as UNICEF consultant from 2002 to 2005 he assisted in reconstruction of the school system in East Timor. His seminal texts on action research are used widely in university courses internationally.

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Michelle Vaughan is an assistant professor at Florida Atlantic University in the Department of Curriculum, Culture, and Educational Inquiry. She teaches courses in curriculum design, action research, and school reform. Her scholarship explores teacher growth and change through action research, online learning, and the integration of technology into practice. She works with local school districts to train teachers in curriculum design and inclusion strategies. Most recently, she was awarded the Excellent in eLearning Faculty Award (2016) from the Center for eLearning at Florida Atlantic University and the Innovation in Higher Education award from the Florida Distance Learning Association (2017).

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Jack Whitehead is a visiting professor in education at the University of Cumbria, UK. He is a former President of the British Educational Research Association and Distinguished Scholar in Residence at Westminster College, Utah. He is a visiting professor at Ningxia University in China and a member of the editorial board of the *Educational Journal of Living Theories* (EJOLTS – http://ejolts.net/node/80). Since 1973, his research program in higher education has focused on the creation of the living-educational-theories that individuals use to improve their practice and explain their educational influences in their workplaces. His website can be accessed at www.actionresearch.net.

Introduction

Craig A. Mertler

At the risk of speaking for the 34 authors who contributed to this edited book, many – if not all – of us were not students of action research during our formative, graduate school upbringings. Many of us stumbled onto action research, quite by accident. However, speaking for myself, it was quite literally the greatest accidental discovery of my professional career. For the past several years, going on two decades now, action research has been the focus of my teaching, writing, research, speaking, and consulting endeavors. I'm sure like those whose names you see attached to each of the chapters in this book, action research has literally become a focus of and for the work I do. In my opinion, this is due largely to the fact that each and every one of us sees the innate and incredible value and potential that lies within action research and its processes, as well as the impact it has had and will continue to have in the broad field of education for many, many years to come. Most of us believe that action research is the key to understanding, improving, and empowering communities, schools, teachers, parents, and students.

I first experienced in-depth learning and application of action research early in my career as a professor. I was teaching "introduction to educational research" – a graduate-level methods course – for education students pursuing their Master's degrees. After several iterations of teaching this course, I really began to observe a huge disconnect. My students seemed to always have difficulty relating to and understanding how things like experimental designs, for example, would work in their schools and classrooms. To be honest, as their professor, even though I tried, I had the same internal struggles. However, whenever we touched on *action research* in that course, I consistently observed a heightened level of interest and connection with the topic from my students. For perhaps the first time in the course, they could begin to see how research could influence and help them in their contextual settings, especially in terms of enabling them to perform their

jobs better, and empowering both them and their students. From that point forward, *action research* became the focus of how I taught that course, how I asked my students to apply their learning and understanding of "research in education," and how I began to view *educational improvement* and *empowerment.*

The scope and focus of the *Wiley Handbook of Action Research in Education* includes theoretical, conceptual, and applied/practical presentations of action research as it is found and conducted solely in educational settings. Coverage and discussion have not been limited to a US perspective, but also include a cross-section of authors and presentations representing global perspectives on action research in education. In fact, the *Handbook* is comprised of 27 chapters, written by 34 authors, who represent seven countries and five continents from around the world.

The *Handbook* presents sections focused on foundations in action research (i.e. discussions of the history, body of literature, and US and world perspectives on action research in education), theory and principles (i.e. discussions of action research as rigorous inquiry, of its value and legitimacy, of the role of theory in action research, of the importance of context and voice, and of structures designed to support the implementation of action research), applications (i.e. trends, professional learning, its role in professional practice doctoral programs, and innovative approaches for dissemination), and first-hand practitioner stories of action research.

Part I of the *Wiley Handbook of Action Research in Education* focuses on various foundational aspects and issues related to action research. In Chapter 1, "Education Action Research: With and For the Next Generation" by Hilary Bradbury, Rolla Lewis, and Dusty Columbia Embury, the authors provide the reader with an introduction to educational action research and focus on widespread action research in schools that includes students at its heart. In Chapter 2, "History of Action Research in Education," Cher C. Hendricks reviews the modern history of action research in school settings, dating back to its initiation with the works of John Collier and Kurt Lewin. In Chapter 3, "The Body of Literature on Action Research in Education," Michelle Vaughan walks us through summaries and examples of published action research in a wide variety of educational contexts and with a wide variety of educational personnel. Chapter 4, "US Perspectives on Action Research in Education" by Andrea C. Burrows, and Chapter 5, "Worldwide Perspectives on Action Research in Education" by Ernest (Ernie) Stringer, Bob Dick, and Jack Whitehead, present discussions of ways in which action research has been utilized in the United States and in various countries abroad, respectively.

Part II of the *Handbook* is centered on chapters that present theories and principles that help to guide the use of action research in educational contexts. In Chapter 6, "Rigor in Educational Action Research and the Construction of Knowledge Democracies," Lonnie L. Rowell explains rigor as it applies to action research in order to make more appropriate connections between educational research and practice. Chapter 7, "Theory in Educational Action Research" by Ernie Stringer, offers discussion and interwoven personal experiences to explain the role that theory has in the application of action research in school settings. Chapter 8, "Legitimacy of and Value in Action Research" by Debra M. Dosemagen

and Eileen M. Schwalbach, builds on this notion and role of theory by adding discussions of why action research should be legitimized and its relative value in the research community at large. Tom Bourner and Cheryl Brook examine the similarities and differences between action research and action learning in Chapter 9, "Comparing and Contrasting Action Research and Action Learning." In Chapter 10, "The Underlying Importance of Context and Voice in Action Research," Jack Whitehead discusses the fundamental importance of the role that context plays for the action researcher who is focused on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. Finally, in Chapter 11, "Supportive Contexts for Action Research," Jennifer Lesh and Jennifer Gleason provide their take on how to successfully gain access to appropriate educational institutions and maintain a research agenda involving collaborative research relationships.

Part III of the *Handbook* focuses on specific applications of educational action research in practice. In Chapter 12, "Action Research for Teacher Professional Development: Being and Becoming an Expert Teacher," Andrew Johnson discusses various ways that action research can be used to supplement, or even replace, traditional methods used to develop teacher expertise. In Chapter 13, "Action Research as Professional Learning for Educators," Tara Flynn and Catherine D. Bruce build on the previous chapter by presenting action research as a mechanism for professional learning, focusing on the importance of maintaining collaborative action research as a classroom-embedded learning process. In Chapter 14, "Action Research as Inquiry in Professional Practice Doctoral Programs," Ray R. Buss reviews ways in which graduate programs geared toward professional practitioners may utilize action research as a main mode of original inquiry. Chapter 15, "Participatory Action Research (PAR) in Education" by Marie Paz Morales, discusses participatory action research that accentuates education as being a social process that emphasizes social critical actions.

Linnea L. Rademaker considers potential connections between action research and the popular education movement within the contexts of leadership studies and arts-based research in Chapter 16, "Action Research and Popular Education: Implications for Twenty-First-Century Leadership and Research Practices." In Chapter 17, "Action Research for Social Justice Advocacy," Mary Brydon-Miller and Bruce Damons offer discussion of action research that focuses on bringing about social change. Chapter 18, "Innovations in the Dissemination of Action Research: Rhetoric, Media, and Communication" by Danah Henriksen and Punya Mishra, provides essential information for the dissemination of action research, using both traditional and non-traditional, as well as both scholarly and practitioner-centered, approaches. In Chapter 19, "Action Research for Systemic Change in Education," Emily F. Calhoun extends the notion of classroom-based action research to a much broader view of action research as a venue for improving entire systems of education. And in Chapter 20, "The Promise and Future of Action Research in Education" by Bob Dick, we learn how action research in education can support and contribute to change and improvement in an unpredictable future.

Finally, Part IV of the *Handbook* provides an outlet for seven educational practitioners to share their experiences in conducting action research. Each of these

authors also discusses the importance and value that action research has had for him or her, both professionally and personally.

The *Wiley Handbook of Action Research in Education* has represented a true "labor of love" for me. I am so passionate about the power that lies within action research, and the opportunity to work closely with this amazing and incredible group of action researchers/authors/experts has been a once-in-a-lifetime experience for me. Thanks to each and every one of you – we wouldn't have the book that lies in front of us right now if it hadn't been for your expertise and experiences – and, of course, your willingness to share those experiences and that expertise. I also want to thank Wiley and, specifically, Haze Humbert for having the vision to take on this project, and for entrusting me with the responsibility of leading the effort. Finally, I would like to thank my wife, Kate, for her never-ending support and encouragement of my writing projects.

Part I

Foundations of Action Research in Education

1

Education Action Research

With and for the Next Generation

Hilary Bradbury, Rolla Lewis, and Dusty Columbia Embury

1.1   Action Research Is Not a Method

Action research is transformative social learning with a change agenda. It shapes the world *with* others in a more desired direction. For action researchers in education, the practice/inquiry combination at the heart of the work aims at making a situation such as a classroom or whole school system better by responding to the continuous need for development or change. The stakeholders of the school (i.e. the students and teachers of a classroom or others involved in the uses of a school, including parents, school board members, maintenance and administrative staff – the list is limited only for practical reasons) engage in cycles of inquiry and practice within their systems.

We offer a generic orientation for getting started with action research, referred to as a simple recipe which may look entirely different depending on context. This is followed by examples in order to set a practical foundation for the more abstract discussion that proceeds to for application.

Action Research: A Starter "Recipe"

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1) Look and listen. Learn about the school you are in by listening for the varied stories that inform the culture. Talk with "leaders" and especially to a diverse variety of students.
2) Articulate the action research question with those who have a stake in the matter at hand. What is the purpose of your efforts together? What is the shared goal? What is distinct?
3) Develop a stakeholder network map. Who needs to be involved? Who can become involved? Who has influence in the system, given your intentions?
4) Design for a participative process that is clear about the degree of participation appropriate along the path from research question to notable results.

(Continued)

Action Research: A Starter "Recipe" (Continued)
5) Consider what facts and evidence are needed and design a process for gathering those. Quantitative (e.g. survey) and qualitative (e.g. interview) data collection methods will help support data gathering.   6) Plan to analyze and discuss the data together with stakeholders, taking care that different stakeholders' perspectives are invited.   7) Develop an action plan with those able to make change happen.   8) Review and reflect on what you're learning and how to move forward. Use the quality choice-points (discussed later) as you evaluate your work.

1.2   Examples of Action Research in Education Worldwide

1.2.1   Korean Kindergartens

Professor Nah, a Korean action researcher, examined how young children's participation can be actualized, and their perspectives respected, through an action research project that engaged them in the development of an outdoor play area in their childcare center (Nah & Lee, 2015). In South Korea, a country known for its Confucian values, the very young children learned to express their points of view directly on issues that mattered to them and found support with this from their teachers. The children were then encouraged to take new initiatives in leading the project so that they experienced themselves as confident learners, developed the ability to communicate and negotiate with other children and adults, showed initiative and enthusiasm, and acquired democratic attitudes and skills. Simultaneously, their teachers got to examine their deep beliefs about who has, and should have, voice, which leads to a deeper inquiry about children's rights and capacities. In turn, the teachers begin to enact different practices than those they have been conditioned with from birth and through their own education. Maintaining these changes in the pedagogy and management of the classroom was then reinforced as the new changes spread to the entire system of childcare centers in which their experiment had started. We note this case to start as it interweaves the personal, or "first-person," inquiry/practice of children and teachers. Additionally, we see the interpersonal, or second-person, inquiry/practice in how the project develops emancipatory *relational* re-patterning between teachers and students. Further, we see the more objective or third-person learning in the facts, figures, and stories of the case that result in the spreading of the experiment through their social networks, including the system of peer review. This interweaving of first-, second-, and third-person learning *with* key stakeholders is fundamental in good action research, and there are many ways of going about it.

1.2.2   Transforming a University: Action Research in the Philippines

Professor Ben Teehankee (2017), a Filipino action researcher, led a redesign of the curriculum of his highly-ranked university in the Philippines, bringing action research to help fulfill their espoused mission of social justice. He quickly involved his faculty colleagues and reached out to the administration for support with, in

parallel, the prototyping of new core curriculum. Starting with pilot programs, undergraduate and graduate students began to lead change projects which often acted as capstone integrative learning at the end of courses, such as those in the MBA (Master of Business Administration) program. These programs were adopted university-wide, in turn requiring support and evaluation by faculty, who were invited into a cycle of inquiry on their own practice of what counts as good research. This example suggests how action research is a social learning process from design to continuous collaborative improvement. It is, therefore, naturally contested and political, with a requirement that fellow stakeholders (in this case, other faculty members) are invited along to help shape the action research effort. When operating in ideal circumstances, action researchers get to convene the whole system (bound in a conscious way with key stakeholders) in moving away from conventionally received ways of enacting education into possible ways of engaging learning. In teacher education, we often talk about the teacher as either the "sage on the stage" or the "guide on the side," but these examples illustrate neither concept. Rather, these models demonstrate something akin to a bird pushing baby birds out of the nest in order to practice flying. In this way, metaphorically, the teacher acts as a mother bird who nudges her fledglings out of the nest. Without this nudge, fledglings will neither learn nor survive. In this same way, the students in Teehankee's university programs pursue learning by practice within the contextual reality of their own lives (e.g. students undertook change projects in local businesses). Through action research as a social learning process, the university students become engaged in social learning for change in their real-life contexts in ways that allow them to integrate their classroom-based conceptual knowledge in a timely manner with the stakeholders who make up their shared reality. Because what counts as a beneficial outcome and for whom is naturally a negotiated phenomenon, there is emphasis on dialogue and relationship building throughout. Education and change become more interchangeable because, in the process of action research, to change is to educate and to educate is to change.

1.2.3 Transforming a Nation: Achieving Equity Through Curriculum in East Timor

Professor Ernie Stringer (2015), an Australian action researcher, describes leading a redesign effort of the entire national education system of East Timor in its new independence from Australian colonial rule. Understanding that a developing economy – recently emancipated from colonialism – should not be recolonized again by finding exogenous values at the heart of its curriculum, Stringer sought out parents to ensure that culturally relevant values would be placed at the center of new curriculum. Gatherings with parents therefore became opportunities for teachers and administrators to think deeply about the re-patterning of culture they wanted to be part of at school. At its heart, action research is a process of interrupting habitual practice by exploring and inspiring innovative alternatives with others most impacted by the choices being made and actions being taken. As Danielle Zandee (Lifvergren & Zandee, 2017) explains, action research is not about establishing and verifying conventional truths about what currently exists, but instead is about providing for generative conditions that

allow better or more adaptive practices to arise. That is to say, action research is about bringing the world we (i.e. participants or stakeholders in the process) want into being. There is no "one size fits all."

These three examples demonstrate some of the diversity in context and goals for action research. The projects, though quite different, used the same principles to inform their action research. In each project, key stakeholders were participants involved in the design and ongoing improvement of new practices that evolved via dialogue, action, and reflection; they were not passive observers or research subjects. They were agents with their own perspectives, generating new possibilities as contributors in collaboration with others interested in the same objective. Despite the important differences in emphasis, each project shows that action research is a social learning process, where relationship building among stakeholders is central in bringing the results for the stakeholders – i.e. students, educators, parents, administrators, and policymakers.

1.3 Student Inclusion Is Key

Having established our sense that there is no one way to do action research, in this chapter we choose to emphasize *the inclusion of students* in the social learning process. We do this not because they are always the primary stakeholders in education action research, but because we do not see enough emphasis on the importance of *including kindergarten to graduate students as stakeholders* in other treatments of educational action research. Indeed, we find that *most education and action research texts simply do not address students as participatory stakeholders or the possibility of them becoming engaged*. While we have seen emphasis on improving personal practice as teachers (which we applaud), we have grown concerned that this is now lending itself to treating students as data source objects, either through the collection of their learning products to analyze them or through behavioral observation aimed at simply measuring a teacher's effectiveness.

We emphasize treating students as subjects *and* agents, encouraging the adoption of an "I–You" rather than an "I–It" relationship (to update Martin Buber's [1958] well-known terms). This means relating to students – regardless of developmental stage – as persons, and working to include them as partners, participants, stakeholders, and even co-researchers with genuine voices in our *collaborative* work.

Our treatment of action research for educators is one elaboration of the action research that stretches across many professional disciplines. The first author has led efforts to gather a diverse "big tent" of like-hearted action researchers through her work as editor of a series of *Handbooks of Action Research* and the peer-reviewed journal *Action Research*. The second author frames "lifescaping" action research as a collaborative process involving students, parents, teachers, administrators, and other stakeholders interested in bringing about more vibrant school communities that enhance learning power and well-being. The third author works with practicing teachers through university work and in their P-12

classrooms to engage in classroom-based action research. In the remainder of this chapter, we aim to have these complementary perspectives define and illustrate what we consider good action research for the educational community.

1.4   Definition

The idea that learning is social and our lives are socially constructed is generally an accepted one. Yet, this idea has not translated enough to the practice of nurturing relationships that they are sufficiently robust to promote learning as a collection of traits and skills that enables people to engage in diverse learning challenges that are inherent in life (Claxton, 2002). We see the value of Kolb's definition of experiential learning as the transformation of experience through reflection and conceptualization for active experimentation (Kolb, 1984). This leads us to emphasize the importance of learning from experience throughout action research. As the famous butterfly effect (Lorenz, 1972) suggests, changes may start small.

Starting with attention to the conditions that allow for learning well from experience with others is very important. These starting relational conditions are not to be overlooked. We define relational space as "a rich context for aspirational trust and reflective learning across organizational boundaries, which is enabled by, and in turn gives rise to, collaborative projects" (Bradbury-Huang, Lichtenstein, Carrol, & Senge, 2010, p. 5). The development of relational space must lay groundwork that is robust enough for learning and enough to allow for collaborative projects. It is in this space that those involved can test assumptions and move beyond armchair theorizing to address complex challenges of learning as social change.

We find it useful to conceive of action research as placing equal emphasis on three elements: creating genuine relationships, bringing in useful concepts to the dialogue from which those involved can extend together into collaborative experiments, and developing experiments that are used to enrich a next cycle of inquiry for action.

A general, often-cited definition of action research used across professional disciplines reads as follows:

> Action research brings together action and reflection, as well as theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern (Bradbury, 2015, p. 1).

How we view and engage others depends on how we have been taught to consider our histories and relational webs. Consider that an action researcher working with first graders would need to first earn the trust of the young students. The students' assessment, and then acceptance and trust, of the researcher may hinge on their perception of how well the researcher listens, how interpersonally adept or how playful the researcher is, etc. The researcher will need also to consider the histories and larger context, ecological and relational, of the

students, their relationships with other adults, experiences with success and failure in learning, etc. Action researchers ask how we can make adjustments and space for our co-researchers, their contexts, and their histories.

Taking seriously that we live in a world of many relationships, among people, cultures, natural influences, etc., we must recognize that meaningful relationships are not instantaneous. It is helpful to consider that significant learning (that results in meaningful change) rarely takes place on the first try. Essential to any relationship is listening deeply in order to understand and enter the world of the other person. We must recognize that relationships and significant change efforts grow over time, and require sustained effort to listen, see, and understand the world and experience of others, as well as the dreams they might have. Sometimes, all of this starts with simple everyday conversations and wondering about the challenges that the other person sees at school. Once the conversations and challenges are explored, even a bit playfully, more engaged inquiry and dialogue can emerge, and possible actions can be considered. Action research can be considered as a path that allows participants and stakeholders to relate to each other, to talk, to dream, to take action, and to track their efforts toward bringing about the school community they want.

Action research is, therefore, a pragmatic co-creation of scientific and practical knowledge *with*, not on, those people with a stake in the issues at hand. Action researchers are concerned with issues that require social or fundamental change among multiple stakeholders where systems are at work, and systems-thinking is prominent or required (Bradbury, 2015). As we view it, educational action research does not place undue emphasis on standardized high-stakes tests, but instead fosters an inquiry process concerned with investigating and producing discourse pathways that enhance focus, vital engagement, self-reflectiveness, and sense of being connected with people and issues one cares about in the educational community. This is anchored in relational spaces that enable the interweaving of inquiry and practice in participation with others.

Action research in education can be conducted in a variety of settings and levels within the educational community. Individual classes, grade-level teams, departments, buildings, and districts all offer opportunities for action research and, when viewed ecologically, are all important settings for learning-for-change that comes from engaging in action research. A common starting point, however, is the classroom. Action researchers must recognize the impact of the larger school community on any classroom and that the classroom does not function (or change) in isolation. We must proceed with caution and awareness that both the school community and the classroom have forms of hidden curricula that are not explicit beforehand and are frequently revealed when conducting action research.

As action researchers, we view knowledge as action that is pragmatic, contextually based, and relational. Learning moves away from attempting to pour content into individual brains and toward enhancing reflection on experience and learning with diverse people in varied environments, found in specific and local spaces, where people join together to bring about practical results. Seeing the world as a social construction can be bracing, liberating, and humbling. It is

bracing because we have been conditioned to accept that which is "real" is located outside ourselves, external to our own experience of it, as if knowledge of the world is a mirror of reality (Gergen, 2015). It is liberating because our knowledge creation is actively remaking the human systems around us in that action research offers us the opportunity to engage in "future forming" and "lifescaping" to bring about the world we want to live and learn in (Gergen, 2015; Lewis & Winkelman, 2017). Finally, it is humbling because we are called to actively participate as citizens of our communities, ranging from our smallest group to the entire world, which includes, as Aldo Leopold (1949) put it, the very land to which we belong.

An Illustration: From Telling to Listening in Articulating the Action Research Inquiry

Everyone has a passion for something. Graduate students often have many passions. Jenny knew that bullying was a national problem; she had a passion to stop individuals from bullying less fortunate kids at her assigned school. The first day there, she entered her school assuming that her action research would focus on reducing bullying at her school. She jumped right in, sharing this with her action research supervisor (the second author), her site supervisor, her principal, and fellow teachers. Nothing changed. She talked to the students. Still nothing changed. She met again with her action research supervisor, who asked: "How might you initiate conversations *with* others, including the students, to identify problems *together*?"

Jenny went back in. This time primed more for listening rather than telling, she initiated conversations with her teacher colleagues and students about their different challenges. She heard a lot, only some of which at first seemed related to her own inquiry and concern about bullying. However, as the relational space ripened, Jenny's conversations with different stakeholders began to deepen. Sharing again her own concern about bullying, she began to see the possibility for a joint inquiry centered on expectations around, of all things, homework. How do bullying and homework connect? Jenny had heard the kids speak of a class period set aside to complete homework as "homework jail." She had also heard a lot about the pressure the teachers were under to focus on educational achievement rather than personal-social relationships. In Jenny's more formal assessment and reflection processes, which included separate meetings with students, teachers, and administrators, she was able to convene stakeholders in taking collective steps to better define school-wide policies on homework.

This shared assessment, rising from Jenny's original inquiry, had become an opportunity to make school a more caring place. While Jenny initially insisted that the issue was bullying, students' experiences of what was important was "homework jail," and the teachers felt that the homework jail represented the very antithesis of what they wanted in their school. Together they found an inclusive path for continuous life-giving development.

1.5   Steady Rise in Uptake

Action research is currently growing in importance, especially among educators and the helping professions, as Figure 1.1 suggests.

The increase in published action research over the years sheds light on the increase in participation and engagement with others – and perhaps the need for us as teachers, counselors, administrators, etc. to affect change. We often feel so powerless and on the receiving end of someone else's vision, someone else's system or strategy, that may or may not reflect what our students need – doesn't action research allow *us* to create meaningful change for ourselves and *our* students, based on our classroom/student/contextual needs?

Education professionals working together using components of action research to change our systems or change our classroom, school, or district culture is not new. Collaboration for problem-solving and designing effective intervention takes place every day in schools – in hallways, department meetings, grade-level meetings, professional learning communities, and more. We work together to address problems – asking our colleagues if they see the same issues in their classroom, on the playground, in talking with families – we reflect on our experiences, successes, and failures, and we come up with new approaches and then report back to our team, department, teaching partner, administrator, etc. This "action-reflection-action" cycle is embedded in teacher education programs as preservice teachers learn to become teachers and as practicing teachers work through graduate-level training. Teachers have traditionally reached out, reflected, supposed and suggested, acted, and then repeated those steps across buildings and districts. Innovation and adoption of platforms that connect teachers, not only to the other professionals in their buildings, but to teachers anywhere in the world, advances our potential reach to entirely new levels. Teachers celebrate, lament, and offer assistance to other school professionals, to parents, even to students themselves using social media. Today's popular social media platforms, such as Facebook, Instagram, and Twitter, offer a taste of what's possible when educators begin to collectively share insights and wisdom. More than just sharing and commenting, these platforms allow communities to be created regardless of distance.

The turn toward inclusion and participation is a way to (re)establish a renewed sense of engagement, and ownership in our public school systems at classroom, school, and educational policymaking levels. For underrepresented groups, this may mean first recognizing and owning that their education system is supposed to serve them despite their many experiences that might suggest the contrary. Indeed, so dominant is the view that public schools are a form of corporate and military hierarchy that the very people whose children make up a school system see themselves and their children as pawns in an unfolding they did not choose. These parents find themselves alienated and often remove themselves from the system that is not serving their best interests. Sociology helps us understand this alienation, explaining that systems – including education systems – become "reified," as if they represent the only reality, as opposed to a human choice that might be unchosen.
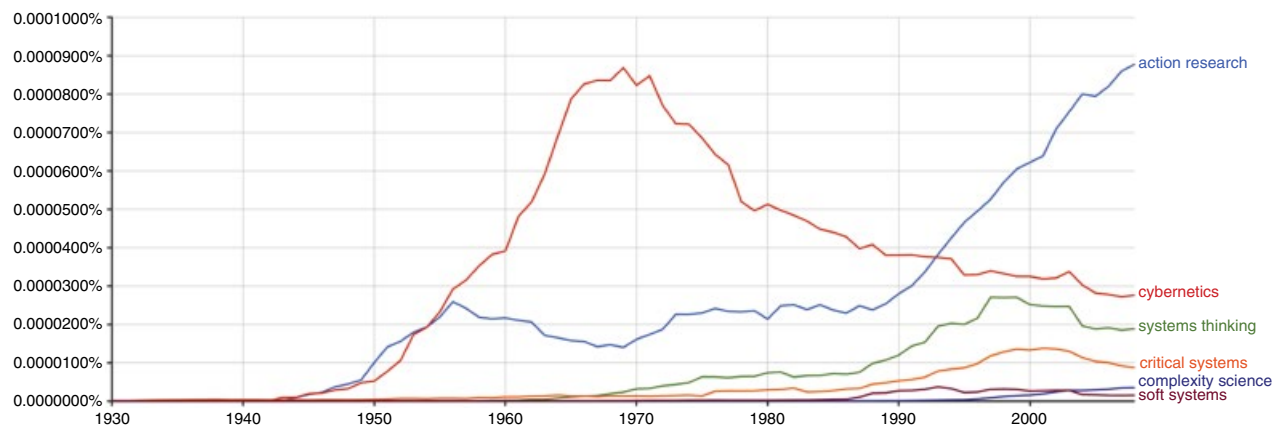
Figure 1.1 Action research on the rise. *Source:* As shown by Google Ngram.

1.6   Unlearning

Perhaps the biggest requirement for appreciating the action research approach is to bracket, or give up, what you think research processes *should* be. The standards of conventional research supposedly, but never actually, ensure objectivity. Relational intersubjectivity that works with the data of stakeholders' experience turns out to be a better dynamo of change. The conventional "shoulds" are therefore only partially useful when we take seriously that we are co-creating a system. As a consequence, the standard inherited models, though useful for rigor in certain types of methods, are largely useless for *changing* those systems in the direction of where the stakeholders wish to go and therefore cannot offer an overall approach to research that is useful to those who are trying to bring about genuine and sustainable change. This does not mean that action researchers never use such methods. Even implementing action research in the classroom, certain standards of the rigor and rules of conventional research must still be reflected – for instance, when selecting evidence-based practices or strategies to use with children, constructivist approaches to education have a history of/propensity to alienate and disengage students with disabilities. For this reason, we must acknowledge that those "rules of research" inherent in other methods act as a safeguard (whether intentional or not) for certain voiceless groups (e.g. students with disabilities) even as it may silence the voices of teachers, students, and parents through the methods of research as it has traditionally been practiced in educational settings (e.g. outsider watches-intervenes-watches and compares to other groups being watched by outsiders). As action researchers, we naturally engage and must also account for that.

Sometimes we are burdened by simplistic ideas (e.g. the teacher is *either* a sage on the stage *or* a guide on the side). When we stop to think about it, we realize we have been socialized to take these ideas for granted and that they're unhelpful to the degree that they operate out of awareness beyond honest examination. One key unlearning the authors invite is unlearning the "old school" idea that action research, like traditional social science research, should involve a question posed by a teacher whose students become guinea pigs and whose work products and assessment tools (such as surveys) aim at cleanly solving a perceived problem and allowing the research to be replicated. We view this as an old school approach because it hews to a pretense of objectivity, mirroring reality, or seeking to replicate/demonstrate conventional social science standards that were designed for large-scale experiments and not teacher–student environments. The current uptake of action research at this time may be read as a constructive response to our feeling of being increasingly burdened by systems designed by others in the past. Now, in a more diverse and inclusive time than we have ever experienced as humans, our research must address, promote, encourage, and require engaging with what is true to the stakeholders' experiences.

Action research is an invitation to look, listen, and take action with others in multiple ways. There is a welcoming of diverse ways of knowing, which means we must take time to try to understand and come to agreements about action to be taken – understanding shifts from school to school, and even class to class, just as it does from student to student. Conversations, understandings, and agreed-upon actions shift according to context; what we can do working with an individual is more flexible than with a classroom, and a classroom is more flexible than school-wide action.

Practice Example: Moving from Teacher-Centric to Teacher-and-Student-Centric Action Research

Context. Leadership in an independent school decides to bring more attention to experiential learning and with it, as a supportive process, decides to bring more of a shared understanding of what the action research orientation might mean for all faculty. A school-wide Action Research for Experiential Learning (AREL) team is convened by the school principal. She invites those who have already some interest in and understanding of action research and invites them to learn together about what this might look like in their own classrooms. Participating teachers who join the AREL team are paid for some of their time with the hope that they may even help proliferate some best practices beyond their first experiments.

In the first official meeting of AREL, the team articulated their overarching inquiry ("how to bring experiential learning deeper into our school") and set as a goal to elaborate some new experiments with their students in their respective classrooms. The first author was then invited to be an action research coach.

Initial design. The focus was on articulating a shared need that is both aligned with the larger goal of deepening school-wide embrace of experiential learning and meaningful for the classroom students.

The inquiry, namely to bring experiential learning deeper into the school, appeared too abstract to engage students immediately. After listening to the teachers, the action research coach suggested that each project might best start with a need articulated by the teacher first – an inquiry located in something concrete, discovered in reflection on daily experience in the classroom – then, as soon as possible, to bring the inquiry to students as co-stakeholders. Within a few weeks, AREL had organized into three projects, each with a lead teacher from a different school-wide program: science, modern languages, and contemporary social issues.

Experimenting in the science program. The Action Research Inquiry: How to have our students move from performance mode to learning mode using the assessment process to support that move.

The science teacher had recently adopted a competency model and decided the key need was to decide how the assessment – co-designed with a science teacher colleague – would be presented. Their efforts at first appeared *technical* in nature, with a key question being which technology to use (e.g. Google Classrooms) so their students could have greater degrees of freedom to show their competency. Once the technical problem was solved, attention moved to the juicer issue of assessment itself. For the largely math-based program with an unexamined tradition of seeing answers as either right or wrong, assessment might require "unlearning." The students perked up.

Experimenting in the contemporary social issues program. The lead teacher, having read widely, decided that a key focus and likely powerful leverage point for transformative learning was to make more conscious use of the physical classroom space. He set about designating different parts of the space to encourage students to "sit in" different parts dedicated to the quadrants of the experiential learning cycle (as described by Kolb's experiential learning theory [1984]). Thus, when working with a topic, students might sit in the space designated for reflection (with cushions on the floor!), and then move to the space for experimentation where there were computers for researching good ideas.

Practice Example: Moving from Teacher-Centric to Teacher-and-Student-Centric Action Research (Continued)

Experimenting in the modern languages program. A Korean language teacher, resonating with the case of Nah and Lee, started the inquiry about how to turn the classroom over more to his students, beyond what he described as his "Confucian control." He took a big step by asking the students what they *felt* enthusiastic about, what they *wanted* to do. Given the students' previous Korean Holiday cooking module, the students enthusiastically decided they wanted to not just talk about cooking but actually cook together. They got quite excited.

Each team was encouraged to start their work and seek coaching in enriching the design when they felt ready for input. As noted above, unlearning is a key issue. Many of the teachers involved had been exposed to older understandings of action research in their own teacher training and each therefore delayed engaging their stakeholders; they appreciated the nudge to engage students sooner. As their projects slowly got underway, coaching then focused on the inclusion of students and other key stakeholders in support of the social aspects of learning for change. AREL came together again at the end of semester to reflect on what they had accomplished so far and to determine next steps.

Design phase II. Let's bring the students in as partners in the inquiry! Some key new practices had imperceptibly arisen on AREL. As all coaching started with a "check in" (associated with Kurt Lewin, a founding voice in action research) based on concrete experience and some reminder of the original motivation for the research question, the teachers' own level of enthusiasm began to rise. In all cases, we heard an easing of the original stress about "doing it right" which had combined with a concern about measurement. Team members began to take their own experience seriously, reflecting on what was important to nurture (namely students' enthusiasm) and how to bring this experience into cycles of reflection and action. There was agreement that the coaching could proceed by bracketing, for a time at least, the conventional question of "how to get data" in order to allow the inquiries to unfurl in practice. The teachers were assured that naturally a point would emerge with clarity about the kind of evidence needed to anchor the claims they'd wish to share with others beyond their experiments.

Deepening the collaboration with students in the science program. Above and beyond the technical aspects, the teacher began to emphasize the "social learning" aspects. Key to this was listening deeply to his own aspiration and deeper motivation: namely, to have his students become articulate (evidence: ability to teach others) about the scientific principles they were each learning, and to do so with as much artistry as they wished to bring, which invited a creative format. The coaching emphasized giving space to the inquiry *with* the student and encouraging students to tell the story of their journey to understand scientific reasoning. Perhaps most important was an invitation to consider what he would be most proud of if this project could be successful. To this he replied: "students would be able to share their stories of transforming the all too common science and math phobias."

Deepening the collaboration with students in the contemporary social issues program. Agreeing that the changes in space had been greeted positively by the students,

the teacher focused on "data collection." The coaching was therefore about bringing more of a learning orientation *with* the students, inviting them to inquire in what ways the space changes were making a difference and seeking evidence of this difference in a kind of "before and after" intervention.

Deepening the collaboration with students in the modern languages program. Agreeing that having student enthusiasm was an excellent start, the teacher began to see there might be a middle path in the inquiry. There was a spectrum of Confucian control to laissez-faire, and the teacher could be more intentional with his choices. He had grown concerned that the students' enthusiasm, thought high, was not sufficiently balanced by learning useful vocabulary (the students lapsed into English when confronted with kitchen utensils and cooking procedures for which they did not have Korean words). The teacher realized that he had constructed an interim identity as fire marshal (making sure no one set themselves on fire) but had too much given up the role of expert teacher. His inquiry was, therefore, how to better frame the cooking classes with learning goals, and then intervene (lightly) in the lapses into English. Moreover, it seemed appropriate to complete the cooking experiences with debriefing. Coaching highlighted how much was being accomplished in terms of experiential learning.

Word of the projects and student enthusiasm spread. As the entire school wished to take on proliferating these early projects, the AREL team saw that they could each tell their stories and findings of engaging students. In doing this they decided not to rely solely on writing up papers, although making presentations at teaching conferences was key. In understanding that sharing *evidence* would be useful, they considered themselves also as change makers, asking where the next circle of influence with their project could be found. In all cases there is attention on considering the audience who receives the evidence and, where possible, on inclusion of these too as stakeholders in supporting the adoption of changes that the findings point to. Because different audiences (teacher colleagues, students, parents, other schools) are compelled by different types of evidence, survey, photo, and arts-based methods are all treated as potentially useful at different times.

Action research is not a neutral affair, either ethically or politically. It is important to know your professional code of ethics and your license or credentialing code of professional conduct. For many, our official professional guidelines already promote social justice. Recognizing and building on this helps anchor our efforts. The political may need in turn to be anchored in our personal values. Can we be actively aware of our solidarity with the poor, such as advocating for free lunches, accessible medical care, and other basics for kids at our schools? Can we embrace the notion of diversity as a resource that serves us all? And, if you are of White/European ancestry, can you recognize your privilege and actively work to create welcoming spaces for persons of color, whether colleagues or students? Do we see our students having some connection to the natural environment? Can you see yourself not only as being a citizen of your country, but part of an international community of nations? Let us choose wisely when to be a detractor, an observer, a participant, or a contributor to community. The key principle in all these interlocking questions is about how to successfully engage true participation of multiple

stakeholders in the process of producing actionable knowledge. For this we must be aware that our results depend on the quality of our intersubjective inquiry processes. Can we make a difference? Yes! Can our systems become sustainable? Yes. It is good to see more of this work emerging.

1.7   Thinking About Practice

There are many ways to do action research. Action research is perhaps best known for its innovative second-person group practices, which are generated by a broad repertoire of methods at personal/interpersonal and collective levels. In comparison to conventional social scientists, action researchers use data genera-tion and assessment efforts as opportunities for experiments in developing and prototyping sustainable futures. Its efficacy is evaluated by the knowledge and capacity developed (both academically and with stakeholders, this making it more valid) and the impact on the focal issue. Concern for contributing to a larger body of knowledge includes critical reflection on assumptions and practices that hold our current systems in place.

For those with conventional training in social research methods, there is an invitation to repurpose those methods, interviews, focus groups, etc. by bringing an attitude for inclusion and a little innovation. Looking critically and listening to stories are vital, and reflexivity is key for enriching how we see the world, too. This means that interviews and conversations become a suitable way to gain an in-depth understanding of the personal experiences and feelings, and the mean-ing endowed to these experiences.

Structured interviews engage people with open questions. In these interviews, the researcher is mainly listening, and probing can be generative for the inter-viewee. Structured questions can also be guided by a positive attitude that seeks to explore the strengths at the core of the school or classroom. This approach to inquiry cultivates an appreciative eye and helps those being interviewed to notice what is best and most positive in the current moment. Inquiry is not only a way to gain insight into the experiences of the people involved but can also enhance the personal understanding of the person being interviewed. Focus groups can be opportunities for consciousness-raising, for opening a space in which not just rationalistic discourse is allowed. There is a reckoning with the demands of knowledge democracy in which we confront epistemic injustice which has pushed away all but an intellectual elite from inquiry processes that design our society (Openjuru, Jaitli, Tandon, & Hall, 2015). Rather than naming all the practices of action research, we highlight a useful and transformative pathway developed within and for the school context.

1.8   An Integrative Practice: Lifescaping

Lewis and Winkelman (2017) offer "Lifescaping is world forming in action. We can take an active role in creatively shaping the world in the social and biological systems where we live" (p. 16). Lifescaping is cultivating a lifegiving core, and not discovering something new or mirroring what is.

Consider that the word "discovery" was unknown before early European exploration where the term was invented to address the anxiety of finding geography and concepts beyond the maps and "solid" and known world defined by the Greeks and Romans. "Discovery" shifted the terror and anxiety about stumbling upon unknown lands and unthought of ways of seeing reality. "Discovery" meant conquering the world. Hence, geographic and scientific discovery were linked linguistically in describing and colonizing the new and unknown (Wootton, 2015). Discovering the new world is linked to a colonizing mindset that displaces and minimizes what was there before, even the wisdom that was there. Discovering something new in science might be best described as offering the best current description of an evolving construct. That is, this current description or way of doing things is what works best right now, but it might change. Lifescaping emphasizes cultivating the living place and relationships where one is; it is not about colonizing but working with the wisdom of place, people, and context in ways that nurture and transform a life-giving core to both liberate and ground learning power and well-being.

Lifescaping's four-phase participatory inquiry process (PIP) is designed to slow down action researcher-change agents at beginning research to deeply understand community ecosystems and build relationships. To do this while moving forward in the four phases, researchers are oriented to loop back if necessary to understand and build upon relationships, deepen dialogue, and invite the greatest possible inclusion and participation. First, the action researcher connects with the school community by *initiating conversations and identifying challenges.* Second, as trust and relationships deepen, the action researcher invites *engaged inquiry* in ways that explore possible actions to be taken toward bringing about an agreed-upon goal directed toward a desired future. Third, *collaborative action* with others is taken, recognizing the need for possible adjustments in response to the community. Fourth, those involved with the action invite *community assessment and reflection* so that the action can be considered collectively, revised, improved, and continued as an evolving developmental process.

Although all action research could be considered as lifescaping, the lifescaping action research defined by Lewis and Winkleman (2017) offers a PIP and an appreciative inquiry (AI) pathway. Both PIP and AI are designed to bring about greater learning power and well-being for students, teachers, counselors, administrators, parents, and other stakeholders in the school community. Both PIP and AI bring forth student and other frequently silenced voices. Ways of inviting participation and voice range from appealing to students to be members of focus groups to encouraging students to be part of youth participatory action research (YPAR) teams, where students become co-action researchers with teachers, counselors, and others.

Learning power and well-being are core constructs in lifescaping. Rooted in the research and practice of Claxton (1999, 2002), learning power focuses upon engaging students in meaningful activities that enhance resilience, resourcefulness, reflectiveness, and reciprocity. Framed by Lewis and Winkelman (2017), "learning power is an active belief and process focused on vital engagement and doing things that are meaningful to learners" (p. 15). Lifescaping frames student well-being as significantly influenced by the school's eco-relational context and the connections students have in their school community with fellow students,

teachers, counselors, parents, other school stakeholders, as well as the physical environment where the school exists. Students exist in a living and evolving context where they can be gardeners. As gardeners, students are invited to lifescape a more desirable world in a local and specific place – their school. Students are also oriented to the reality that, like landscaping and gardening, lifescaping is a continuous and never-ending process of being actively engaged with others in bringing about the beauty they want to see come to life.

1.9 Situating Lifescaping in Graduate Education: An Example

Like most graduate programs, action research at California State University, East Bay, is limited to a single, yearlong effort to meet a capstone, thesis, grade, or graduation requirement. The bureaucratic structure inherent in educational programs, requirements, the world students bring with them, and other factors point to some limitations. For instance, the longitudinal impact and potential action research generated by a university can be diminished by a number of factors:

1) *Graduate students.* The desire to please the professor or fear about grades or getting it "right" remain part of graduate students' conditioning. Even after lectures regarding social justice, advocacy, etc., some graduate students in education, despite recognizing their lack of power in the P-12 school where they are placed, are reluctant to assert themselves for fear of getting in trouble with supervisors. Cohorts divide into groups who see action research as an assignment and necessity to get a grade in a required course, and those who see action research as a transformative way of being a professional. Others fall somewhere in between.
2) *On-site supervision.* There is the promise of linking projects to each other over time. It may take years for site supervisors to see the potential in building upon the action research graduate students are doing. Excuses offered are often diverse, but usually such site supervisors say they are too busy to do anything but provide supervision and merely support graduate students conducting the research. Ironically, this is even after the site supervisor participates in helping the graduate student define a lifescaping project that can be accomplished during their yearlong placement at the site supervisor's school.
3) *The site.* Some sites where graduate students are placed are facing the ongoing impact of poverty, racism, violence, and systemic educational dysfunction. Strong graduate students are placed in such settings to provide hope to the site supervisors, be allies to kids, and develop creative action research projects that address an immediate need.

In addressing these and other challenges inherent in bureaucratic organizations (see Graeber, 2015), a group of colleagues in Educational Psychology and Educational Leadership at California State University, East Bay, founded the Lifescaping Project in conjunction with the Taos Institute (http://www.

taosinstitute.net/lifescaping-practices-in-schools). The Lifescaping Project is a performative and results-based direct-action advocacy endeavor designed to help education professionals bring about the world they want to build with others. Founded to help share the action research and AI efforts of graduate students, professionals-in-training, and working professionals in public schools in the San Francisco East Bay Area, the Lifescaping Project is grounded in the hope that having actual action research (warts and all) available to graduate students, site supervisors, and school communities will provide resources and models of practice that are concrete, specific, and exist in varied contexts. Knowing the limitations and possibilities enables graduate students to make choices about the type of professional they want to become, how they want to engage in the schools where they are, and how they want to foster their own learning power and well-being as professionals.

1.10   The Challenge of Doing Relevant Social Science: Action Research that Integrates Objectivity with (Inter-) Subjectivity

Lifescaping is an orientation to action research guided by a PIP designed as an effort to transform schools into places where children, professionals, and community members want to be. Lewis and Winkelman (2017) do not pretend researchers are on the outside looking in – the research is relational, participatory, and engaged. Researchers are oriented to reviewing, reflecting on, and looking critically at more traditional research that purports to be objective and controlled. Still, it is vital to know how to read and understand the research coming from varied traditions. We recognize our subjectivity creates blind spots, but encouraging critical inquiry and dialogue disrupts any drift toward solipsism. The participatory and dialogical nature of the endeavor presupposes intersubjectivity in the process; simply emphasizing seeing, hearing, and feeling *with* and *as others* in the school opens one up to noticing the world from differing perspectives.

1.11   Groundings

"Groundings" refer to efforts to articulate the multi-faceted worldviews that give rise to our work as action researchers. Articulating our worldview is an act of finding ground under our feet (hence, "groundings"), whereby we come to know both *what* we know and *that* we know, and that *we can take action based on what we know*. We emphasize three grounding concepts:

1) *Emancipatory experiential learning*. Attributable to Paolo Freire's (1972) concerns with emancipating those who suffer the oppression of conventional pedagogical methods, we want to invite experience into action research, moving beyond an image of research that is at a distance from real concerns. Learning is grounded necessarily in (inter)personal experience, and it cannot be grounded solely or primarily in abstract concepts. Experience provides the

ground for reflection, which in turn creates space for new concepts that are tested for their value in active experimentation. When learning processes are done well, as they need to be in participative research, we often experience delightful surprise, unforeseen success where the costs of upholding the current centralized systems can be redeployed to a local stakeholder-centric model of emergent learning and coordinated action. This model of "researching *with*" is perhaps what people have always done for themselves before inquiry became the sole property of an objectivist ivory tower and corporate structure which both consumed and monetized experts' knowledge as both real and singular.

2) *The relational construction of learning.* Teaching and learning are socially framed and determined (Dragonas, Gergen, McNamee, & Tseliou, 2015). Knowledge claims issue from particular groups, ranging from diverse scientific communities with varied specific methodologies to folks in the flat earth society, at particular times in history and in unique eco-relational contexts. Given the range of possibilities, social constructionists wonder how and what any particular curriculum enables students to accomplish in the world. Genuine skills are taught in apprenticeships by observing and working with mentor or master craftspeople. Individual minds and learning are always in relation to someone or something to some end.

3) *Extending epistemology: interweaving first, second, and third practice/inquiry.* At its essence, action research is about engaging groups of people to co-create meaningful change in the world. Starting in conversations, action can be coordinated. Yet, to bring about change, we know we need more than statistics and facts; we also need to inspire the heart. As action researchers concerned with today's complex global challenges, we are learning that we need to tap into a variety of practices to successfully bring about change.

From the opening examples, we have emphasized the importance of interweaving and integrating first-, second-, and third-person practice/inquiry. Attending to first person, which refers to our personal reflexive subjective heart/mind, in our work has particularly resonated a lot with a new generation of action researchers. We might say that good action research resides in the quality of the "first person's" ability to know biases and work with shadow elements of consciousness to help shift self and system toward a more emancipated community consciousness. Our work in second-person intersectional spaces is now called to larger scale and scope. Social contagion processes that move our experiments through ever-widening, eco-relational social networks lead to third-person proliferation.

We must nonetheless allow that when most people think about research, they normally default to methods such as surveys, interviews, and focus groups – so conditioned are we by conventions. Therefore, the growing momentum among action researchers who recognize creative or arts-based methods as essential to our human survival and who are turning to such methods to support their change objectives is itself a transformative moment for us all as learners. Creative and arts-based methods in action research processes can offer a range of possibilities for promoting embodied sensory experiences, building empathy with multiple audiences, and opening new ways of seeing, being, doing, and knowing (Etmanski & Bishop, 2017).

1.12   Quality Choice Points in Education Action Research: Integrating Objective, Intersubjective, and Subjective Perspectives

1) *Quality requires articulation of objectives:* We ask to what extent the action research (AR) explicitly addresses its objectives. These objectives might not be known at the start of the AR process, but it is vital that they emerge. In her lifescaping AR, Toy (2017) offers an example where the principal of her school wanted her to investigate how effectively the teachers were implementing the school's Second Step program as her AR project. Toy (2017) agreed but reshaped the objective to examine what social emotional learning (SEL) programs the teachers were using and what programs the students were responding to best. In her lifescaping process, Toy (successfully) reframed the objectives to find out what worked effectively to promote SEL in her school, allying herself with teachers and students to find out what worked best.

2) *Quality requires partnership and participation:* We might ask to what extent and by which means the AR reflects or enacts participative values and concern for the relational component of research. By "the extent of participation," we are referring to a continuum from consultation with stakeholders to stakeholders as full co-researchers. Toy's (2017) example also illustrates the importance of partnership and participation. She was invited to objectify and evaluate teachers, but she shifted to engaging teachers as partners in sharing what worked with their SEL programs and students as partners who could share something about their own experience of what SEL approach worked best for them.

3) *Quality requires contribution to action research theory-practice:* We might ask to what extent the AR builds on (creates explicit links with) or contributes to a wider body of practice knowledge and/or theory, or to what extent it contributes to the AR literature. Again, Toy (2017) conducts a traditional review of the literature, reflects on the theory guiding her work, and is invited to publish her work so that others can learn from her successes and challenges.

4) *Quality requires appropriate methods and process:* We might ask to what extent the AR process and related methods are clearly articulated and illustrated. By "illustrated," we mean that empirical papers "show" and not just "tell" about process and outcomes by including analysis of data that includes the voices of participants. Again, Toy (2017) shares how she was informed by lifescaping AR, integrating both PIP and AI into her AR.

5) *Quality requires actionability:* We might ask to what to what extent the AR provides new ideas that guide action in response to need. Toy's (2017) AR led to significant conversations about "where do we go from here?" regarding the school's Second Step and SEL program. Her action led to further action that included respecting the best practices of the teachers' SEL activities and the students' insights about what they liked.

6) *Quality requires reflexivity:* We might ask to what extent self-location as a change agent is acknowledged. By "self-location," we mean that authors take a personal, involved, and self-critical stance as reflected in clarity about their

role in the AR process, clarity about the context in which the research takes place, and clarity about what led to their involvement in this research. As a professional-in-training, Toy (2017) recognized her eco-relational location at her school, within her profession in the moment, and where she would guide her development.

7) *Quality requires significance:* We might ask to what extent the insights of the AR are significant in content and process. By "significant," we mean having meaning and relevance beyond their immediate context in support of the flourishing of persons, communities, and the wider ecology. Again, with Toy (2017), her lifescaping AR at her school changed the school climate and practice. It had significance for her as a professional-in-training, for her school administrator, for the teachers who worked with her, for the students, and for the entire school community's program.

1.13   Conclusion

Action research is not for the passive, the faint of heart, those who want to sustain the status quo, or those who want to simply get by in life. Educational AR is a call to dream with other educators about possibilities for bringing a new world into being, but not a new world at-large – a new world in a small group, a classroom, a certain grade level, a school, or a district. Lifescaping AR is a call and challenge for educators to work from and tap into the life-giving core of the community where they find themselves. That is to say, like all meaningful AR approaches, it is a call to change our local and specific school community with others in ways that we all dream is possible. Such efforts do not change everything at once. Like landscaping, lifescaping AR takes time. We begin by listening, and then listening some more. We look at what is working and where the challenges are, and then look some more. We have conversations about what we hear and see. We engage in dialogues about what could be and invite inquiry with others into concrete goals and objectives. We take action. We assess and reflect upon the action. We improve things. We try over or move to a new dream. We focus on the learning and well-being of students and adults. We recognize challenges and significant differences, contentious obstacles, and ways to align and move, or simply muddle toward an agreed-upon goal. We keep the dialogue moving. We keep our school community alive with learning. We look for what works. We share new ideas and keep our schools, and ourselves, alive and vibrant.

Educating conventionally, as we have done for over a millennium in what Freire calls the "banking model," will not solve intractable, wicked, complex problems. We must innovate and join with others to cultivate transformative change toward our desired goals. Action research helps with this because it arises from a learning model that encourages inclusion and transformation. We are not arguing that being an "obedient" conventional researcher is bad, just that it means largely remaining passive as we await somebody else to invent the new "best practices" that our changing social contexts require.

To the degree that we work with unexamined practices, we are less able to prepare students for the world around us. Because the times, overshadowed by

runaway unsustainability, now require something different, in our chapter we emphasized the value of educator collaborations, both with each other and with their students, as a transformative approach. We do this to better link efforts in education to our ability as a species to sustain our planet. An action researching school is, by definition, more connected up with its stakeholders and environment. Action research liberates learning from a consolation of facts to taking our own experience seriously. As the "power over" model of education enables authoritarianism and leads toward an ever-deeper inequality, AR provides an alternative. Our very appreciation of the many truly good things in the present educational system suggests how key educators and students are in the transformation. We hope our work is received as a nudge toward experimenting with the spirit of AR.

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2

History of Action Research in Education

Cher C. Hendricks

As Greenwood and Levin (2007) so succinctly put it in the first sentence of their chapter on the history of action research, "History can be written in many ways, and no one ever writes *the* history" (p. 13). A quick look through books and articles on action research in education might seem to contradict this, since most provide a similar view of its history – the influence of Kurt Lewin, its relationship to the Progressive Education movement, Stephen Corey's connection of action research to the field of education, Lawrence Stenhouse's work on practitioner research, and the many action research networks across the world that resulted from the body of work produced across these and other advocates of action research.

Yet, there is some debate about the origins of action research and whether it was described first by Collier or Lewin. As Noffke (1997) suggests, "The story of action research is traced out almost as a family tree, with clearly identifiable descendants and some debate over who is the patriarch" (p. 311). At issue are the varying ways action research is defined and interpreted and the different historical lines that support those interpretations. In my own early attempts to learn about the growth of action research in the field of education, I tended to skip over some key figures and focus instead on those with a clear connection to the field of education. This, I think, supports Noffke's contention that one's own interests affect the one constructs history. Noffke asserts "the importance of history not only in locating one's work but in grounding contrasting views while legitimizing one's own" (p. 311). While it is my intention not to do that in this chapter, the history presented here is filtered through my own interests and biases and likely those of the sources I've chosen to both include and exclude.

This chapter describes early influences on the creation of the broad field of action research, from Collier to Lewin, to the connection of action research to education by Corey, and then to the curriculum projects in the United Kingdom that influenced the practitioner research movement. In this account, I rely on a number of primary sources as well as the works of great scholars who have far

more knowledge and experience than I, most notably McTaggart, Kemmis, Noffke, and Adelman, who have written in-depth accounts of action research's history, particularly in education.

2.1   Early Origins of Action Research: John Collier and Kurt Lewin (1930s–1940s)

While most scholars attribute the birth of action research to Kurt Lewin in 1934,[1] a few point to John Collier, Commissioner of Indian Affairs from 1933 to 1945, as the individual who first described action research. In his passionate essay "United States Indian Administration as a Laboratory of Ethnic Relations," Collier (1945) described a grim history of the treatment of Native Americans that included a call for a new kind of research that is "evoked by needs of action" (p. 300). Published just a few months after the death of Hitler, Collier's essay was a strong condemnation of the way indigenous peoples had been treated:

> What Hitler would have done to Europe and to the rest of us, if he could, we white men did do to a thousand Indian nations across hundreds of years. Hitler did not intend to do to the Poles or the Jews or the democracies any more than white men did to the Incan, the Mayan and Aztec civilizations, or any more than we white North Americans did to the Indian civilizations of California, of the Atlantic seaboard and the Great Plains. (p. 266)

Collier described shifting policies regarding native populations – the first policy to destroy them and the second to liberate them – that ultimately led to a "benevolent federal 'guardianship'" (Nash, 1938, p. 7) that was destroying native cultures. With the Indian Reorganization Act of 1934, Collier and others sought to move from a model whereby native peoples were assimilated into American culture to one that protected tribal life and decreased government interference (Nash, 1938).

In his description of the many ways in which native peoples had been oppressed, Collier (1945) explained that it had been necessary to prevent research from taking place, suggesting that "Anthropological research by public and private agencies was veered sharply away from any and all practical and governmental problems concerning the Indian" (p. 272). Collier, then, advocated for a new type of integrative research "impelled from central areas of needed action" (p. 275). While he did not label this new type of integrated research as *action research*, he did call for "research-action, action-research," (p. 293), and his description certainly bears resemblance to how we might define action research today:

> … since the findings of the research must be carried into effect by the administrator and the layman, and must be criticized by them through their experience, the administrator and the layman must themselves participate creatively in the research, impelled as it is from their own area of need. (p. 276)

The kind of research Collier advocated for was one based on real tribal problems such as reservation policy, school curriculum, and adult education, and ways to use native resources. Research was based on concrete questions, and results were used to take action. Collier (1945) explains:

> We have learned that the action-evoked, action-serving, integrative and layman-participating way of research is incomparably more productive of social results than the specialized and isolated way, and also we think we have proved that it makes discoveries more central, more universal, more functional, and more *true* for the nascent social sciences. (p. 300)

Around the same time Collier was advocating for a new type of integrated research for action to address social issues, social psychologist Kurt Lewin was finding his way as a scholar and researcher in a new land. Lewin left Germany in 1933 as a "refugee scholar" (Marrow, 1969, p. 73), moving to the United States at the height of the Great Depression. Lewin's first position in the United States was at Cornell, where he was able to secure a two-year temporary appointment that was grant-funded from the Emergency Committee on Displaced Scholars.

Lewin's position at Cornell was secured by a professor of home economics, Dr. Ethel Waring, who met Lewin in Berlin in 1929 and became fascinated by his experimental methods using motion-picture studies of children (Marrow, 1969). It was Waring who advocated on Lewin's behalf, and thus his position at Cornell was in the School of Home Economics rather than in the Department of Psychology. Lewin's research at Cornell focused on nursery school studies of ways teachers could change the poor eating habits of their students, and Marrow suggests that this research may have laid the groundwork for Lewin's later work.

While at Cornell, Lewin attempted to found the Psychological Institute at the Hebrew University in Jerusalem, a project that ultimately failed due to lack of sufficient funding. Lewin envisioned a research center that would focus on three areas of study: the psychology of Near Eastern peoples, problems in Jewish immigration, and comparative studies of the psychology of Jews inside and outside of Palestine (Bargal, 1998, pp. 62–63). Bargal explains that these areas of study were far removed from his earlier work in Berlin, which were more theoretical in nature and focused on topics such as memory, learning, and motivation. Lewin's desire to dive into social psychology through the creation of the Institute was clear, Bargal suggests, and reflected his "willingness to direct the research towards topics which he viewed as major social issues in Palestine" (p. 66). In his description of the social issues Lewin was concerned with, Marrow (1969) states, "Working on these problems, Lewin expressed for the first time his new interest in what became known as action research. It marked a radical departure from the type of research he had been conducting up to that time" (p. 82).

After Cornell, Lewin secured a temporary appointment at the University of Iowa – once again, a position made possible through the advocacy of a colleague who believed in the importance of his work – and a grant from the Rockefeller Fund's General Education Board, which paid for his appointment (Marrow, 1969). Lewin's temporary appointment was made permanent, and he stayed at

Iowa until 1944. It was during his time at Iowa that we see the strong beginnings of Lewin's action research work. About Lewin's work at Iowa, Marrow explains:

> Lewin's' thinking was strongly life-connected. His theories were tools to attach everyday human problems. They led Lewin, in chicken-and-egg fashion, to place increasing emphasis on experimental studies of the how and what-for of individual social change – studies which later were consummated as "action research" and "group dynamics." (p. 87)

For both Collier and Lewin, it was authentic problems and the desire for social change that influenced their ideas about research. This was a natural result of the overwhelming issues of the times: oppression of minority groups, turbulent economic conditions, and the uncertainties of war. Donald MacKinnon, a student of Lewin's and later a professor of psychology at Berkeley, calls Lewin's emigration, "… the stimulus which directed his energies to problems that he might never have dealt with if there hadn't been an upheaval in the world at that particular time. All these terrible events deepened his commitment to mankind and the betterment of man's lot" (Marrow, 1969, p. 85).

During his time at Iowa, Lewin engaged in workplace studies at the Harwood Manufacturing Corporation in Virginia. Harwood, in fact, was where Alfred Marrow (Lewin's biographer) and Lewin first met, Marrow having been an officer in the company at the time. The initial research study at Harwood focused on increasing productivity among a group of inexperienced trainees who were failing to meet production quotas. In this experiment, trainees were divided into two groups – one that received direct instruction on how to do the job and a second that worked together as a group to decide how tasks would be divided. The second group, unlike the first, was also encouraged to provide feedback on the training. Results of this study revealed that the second group was more productive than the first, learned their tasks faster, and had higher morale (Adelman, 1993).

What began as a small study to increase workers' output turned into an eight-year collaboration between Lewin, his students, and Harwood (Marrow, 1969). Among the topics investigated during that time were self-management, leadership training, changing stereotypes, and overcoming resistance to change. A common theme in the studies at Harwood is the necessity of viewing those involved in the research as active participants rather than passive subjects. As Adelman (1993) explains, "Action research for Lewin was exemplified by the discussion of problems followed by group decisions on how to proceed, [and it had to] include the active participation by those who have to carry out the work in the exploration of problems that they identify and anticipate" (p. 9). Adelman points to a significant criticism of Lewin's work in this area, however, that relates to power structures inherent in studies that focus on productivity goals established by management and devoid of democratic processes or participation.

While this is a legitimate criticism of Lewin's research, it is clear that Lewin believed in making social research an inclusive and collaborative process that involved a "group of people addressing a social issue" together (Noffke, 1997, p. 313). Lewin was just beginning to define the process of action research when

he unexpectedly died of a heart attack in 1947. In the few years prior to his death, he had worked himself to the point of exhaustion on two large projects: creating the Research Center on Group Dynamics at the Massachusetts Institute of Technology and the Commission on Community Interrelations (CCI).

Formally established in 1945, the research work of the CCI focused on improving intergroup relations and increasing a sense of belongingness among minority groups (Marrow, 1969). Isidor Chein, Stuart Cook, and John Harding served as researchers under Lewin at CCI, defining four types of action research that would guide the work at CCI. *Diagnostic* action research focused on identifying problems that needed to be addressed. *Participant* action research engaged individuals in a community in the process of examining local issues. *Empirical* action research involved gathering data with different groups for the purpose of developing "generally valid principles" (Marrow, 1969, p. 198). Finally, *experimental* action research required testing hypotheses in controlled studies of social situations (Marrow, 1969).

Under this action research framework, the CCI undertook research projects on topics such as gang behavior between Jewish and non-Jewish teenagers, integration of minorities into the workforce, integrated housing, community bias, and dealing with bigotry (Marrow, 1969).

Influenced by this work and in the year before his death, Lewin (1946) published his article "Action Research and Minority Problems" in *The Journal of Social Issues*. In it, Lewin advocated for a cyclical research process that included a "spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the result of the action" (p. 38). The result of this research would lead to social action rather than "research that produces nothing but books" (Lewin, p. 35).

While Lewin left behind little more than broad descriptions of action research, those who worked with him continued their work in the field. Chein, Cook, and Harding, for example, published their article "The Field of Action Research" in *The American Psychologist* in 1948. They described action research as a

> field which developed to satisfy the needs of the socio-political individual who recognizes that, in science, he can find the most reliable guide to effective action, and the needs of the scientist who wants his labors to be of maximal social utility as well as of theoretical significance. (p. 44)

In the article,[2] Chein, Cook, and Harding (1948) outline the special problems of action research. For example, the researcher isn't simply responsible for making discoveries but is also responsible for ensuring that those discoveries are applied in a real setting. Further, the researcher has to be intimately engaged with the community in which the research takes place and must include its members in each step of the process – from identifying which problems to address to determining how they will be studied. Chein et al. identify and describe the four types of action research, give strengths and weaknesses of each, and provide examples from their studies at CCI to illustrate how action research is conducted and the unique opportunities and challenges that are faced in the process.

It is interesting to note that Lewin was aware of Collier's work, which he referenced in "Action Research and Minority Problems" (1946). In asking how as a nation and a world we move forward with new policies that take into account intergroup relations, Lewin questioned whether the United States would continue to exploit others via colonial imperialism or

> … will we follow the philosophy which John Collier has developed in regard to the American Indians and which the Institute of Ethnic Affairs is proposing for the American dependencies? This is a pattern which leads gradually to independence, equality, and cooperation … Jim Crowism on the international scene will hamper tremendously progress of intergroup relations within the United States and is likely to endanger every aspect of democracy. (p. 46)

Though it is unclear exactly how Lewin and Collier were influenced by each other's work, their conceptions of action research bear many similarities. Noffke (1997) suggests that both men supported research that was collaborative and that focused on solving or addressing a social issue. Both described the research process as dynamic, reflective, and cyclical. Collier and Lewin also believed that research should be field-based, taking into account the context and complexities of the community in which it takes place. Their influence on the field of action research is evident, and while neither delved very deeply into educational action research, Noffke asserts that their work "did influence the shape of particular forms of action research in education" (p. 314).

2.2   Action Research in Education (1940s–1950s)

While many scholars attribute Stephen Corey with bringing action research to the field of education in the mid-1940s, some suggest that the action research movement in education pre-dates even Lewin. Hodgkinson (1957), McKernan (1987), Wann (1953), and Noffke (1997) point to the progressive education movement that began as early as the late nineteenth century, which encouraged the application of the scientific method to educational problems but also involved teachers in the process. McKernan identifies works by Bain (1879), Boone (1904), and Bobbitt (1918) as the earliest examples of educational action research, particularly in the area of applying the scientific method to the study of curricular problems.

Wann (1953) suggests a connection between the cooperative curriculum studies in the early 1920s and action research, noting studies in Los Angeles, Denver, and Houston, as well as studies conducted by the Teacher Education Commission in the 1930s. Noffke (1997) also includes field-based studies in the 1930s, such as the Virginia Curriculum Program and the Eight-Year Study, which involved collaborative school-based experiments conducted by consultants, school administrators, and teachers.

Further, Hodgkinson (1957) describes Binet and Simon, Thorndike, Dewey, and others as advocates of the scientific method applied to education, as well as Childs (1931) and Buckingham, whose 1926 book *Research for Teachers* advocated for

teachers to become "research workers" who would conduct their own experiments in their classrooms, based on the basic research conducted by psychologists in lab settings. Buckingham (1926) asserted:

> As long as learning experiments are handled by psychologists alone we shall make slow progress so far as education is concerned. Many psychologists are not even interested in education. Under these circumstances we have a lot of piecework but no quantity production. The only persons who can supply the need in this respect are teachers. (p. 369)

Buckingham was not an advocate for action research as we might define it today but instead was suggesting that teachers should conduct studies based on theory as a way to include larger numbers of research subjects, in the context of real classrooms, in order to inform their own practices but also as a way to invigorate their teaching. This seems to glide around the edges of what many of us might wish for educational action research, because many of these early discussions on research by teachers placed that work in service to the research interests of those in positions of authority outside of classrooms who build the theories, rather than to the teachers themselves. McTaggart (1985) suggests that Buckingham was well aware of the barriers that existed for teachers wishing to study their practice, noting Buckingham's (1926) assertion that "faculty members are hired to teach and not to investigate. They are not expected to concern themselves with the problems of their calling" (p. 379).

In addition to Buckingham, Hodgkinson (1957) contends that Dewey's work also ultimately influenced the connection of action research to the field of education. Hodgkinson explains, "Although Dewey is never mentioned in the literature as an initiator of action research, it is likely that some of his works would reveal specific evidence that Dewey knew of, and approved of, the concept of action research" (p. 138). Hodgkinson focuses on Dewey's writings about the teacher as a research worker to make his case, but as Noffke (1997) asserts, many scholars of action research, while acknowledging Dewey's influence on the field, do not explore further the particulars of this influence.

Others clearly make a strong case for Dewey's significance to the field of action research. Schubert and Lopez-Schubert (1997), for example, suggest that although Dewey's 1929 *Sources of a Science of Education* was used for over five decades "as a source of justification for almost any variety of educational research" (p. 211), Dewey saw clearly "the essence of educational research in the practical inquiry of teachers" (p. 211). They elaborate on Dewey's position that teachers should not be expected simply to follow researchers' recipes, based on researchers' scientific findings, but instead should engage in ongoing reflection on their practice.

Burns (1999) also finds connections between Dewey's work and action research and suggests that Dewey, along with other progressive educators, sought to "challenge the orthodoxy of the scientific research methods" (p. 26) that were being applied in the field of education. Burns explains that Dewey was interested in demystifying scientific approaches to educational research that were based on natural science research methods. According to Burns, Dewey advocated for a

more democratic research process "based on the idea that researchers, practitioners, and others involved in the educational community should address their efforts toward educational enquiry collectively in order to confront common educational problems" (p. 26).

The progressive education era of the early twentieth century, as well as the decades leading up to it, was a fertile time for educational research. Contributing to growth in this field was the push to legitimize education as a field by applying the scientific method to the study of education, and there were many advocates who saw the benefit in including teachers in the research process. While the role of the teacher varied from that of implementer and tester of others' theories to collaborator and reflective practitioner, the teacher did have a role in the research process. However, it wasn't until Stephen Corey's work in the 1950s that action research became clearly and intentionally connected to the field of education.

Corey, a professor at the Horace Mann-Lincoln Institute of School Experimentation at Teachers College, Columbia University, was the first to formally connect action research to the work of classroom teachers. McTaggart (1985) explains that in 1946, Corey moved to the Horace Mann-Lincoln Institute from University of Chicago, and that was the beginning of the Institute's work in action research. Corey published a number of articles between 1949 and 1953 based on the Institute's work in the areas of action research, curriculum development, and curricular experimentation. Noffke (1997) asserts that the curriculum projects that were facilitated through the Institute, led by Corey and his colleagues, focused on the "knowledge, vitality, and dignity of teachers" (p. 316).

In his 1953 book *Action Research to Improve School Practices* – a book Schubert and Lopez-Schubert (1997) call the "bible of the action research movement in the United States" (p. 214) – Corey names both Collier and Lewin as influences on his work and also suggests close ties between action research and the Eight-Year Study, cooperative studies in curriculum development described by Herrick (1948), and the American Council on Education's Project in Intergroup Education (Taba, Brady, & Robinson, 1952). Corey describes similarities between his concept of action research and the work of Dewey on reflective thinking (1916, 1933), though he explains that action research more heavily focuses on evidence, cooperation, and an action hypothesis.

Though he does not go into a detailed history of educational research, Corey (1953) does briefly review the 50-year history of the scientific movement in education, which he suggested had no meaningful effect on the way practitioners try to solve their own problems. Corey contends, "The professional students of education, as distinguished from the practitioners, have taken over the scientific method and are disposed to guard research activities closely as their province" (p. 1). Corey describes the failure of this process, however, to make any real difference in the field. Corey further chronicles the attempts made in the 1920 and 1930s to involve teachers and other practitioners in the research process, which were limited in Corey's view because practitioners' roles were either to test others' theories, to help academic researchers collect data, or to improve their own problem-solving abilities. As Corey notes, "Little was said about research as a method by which practicing school people could improve their decisions and actions" (p. 3).

In his critique of the current state of educational research, Corey (1953) asserts that its main goal is broad generalization and that the chief method for achieving that is putting "disinterested professionals" (p. 4) who can remain objective in charge of the process. Connected to this objectivity, Corey contends, is rarely any sense of obligation or even interest in the meaningfulness or usefulness of the results. He states, "The fact that the professional researcher is rarely, if ever, actively engaged in trying to do something about the problem he is studying is cited as a virtue" (p. 5). Instead, professional researchers expect the practitioner to take their results and apply them to practice, though Corey questions whether this arrangement ever leads to real improvements in the classroom.

Corey (1953) describes the professional researchers' acknowledgement of the lack of theory-to-practice changes, recounting papers read yearly at the American Educational Research Association annual meetings that either blame practitioners who are "slow in using the fine research data lying around" (p. 8) or suggest that lack of communication between researchers and practitioners is at fault. Corey contends, however, that even when the teacher has access to research that is connected to a problem faced in the classroom, changes in practice

> ... are more likely to occur if they are a consequence of inquiry in which the teacher has been involved and are based upon evidence he has helped to procure and interpret in his attempts to solve an instructional problem important to him. (p. 9)

Corey (1953) contends that practitioners must define a problem important to them, generate their own hypotheses about that problem, and engage in their own study of that problem in order for real changes to occur in the classroom. He rejects the notion that the practitioner can simply learn how to be a better teacher by reading studies conducted by professional researchers, asserting that pedagogues "are strongly disposed to overestimate the extent to which reading will change behavior" (p. 10). He points to research conducted in the 1920s as well as to results of the Eight-Year Study on courses that prepare students for college, stating that none of the results, though widely available, had any impact on practice.

In *Action Research to Improve School Practices*, Corey (1953) provides a definition of action research:

> Action research in education is research undertaken by practitioners in order that they may improve their practices. The people who actually teach children, supervise teachers, or administer school systems attempt to solve their practical problems by using the methods of science. They accumulate evidence to define their problems more sharply. They draw on all of the experience available to them for action hypotheses that give promise of enabling them to ameliorate or eliminate the difficulties of their day-to-day work. (p. 141)

Corey further provides an action research process that includes identifying and defining a problem, considering potential actions to deal with the problem,

choosing actions to implement, gathering data, and determining generalizations from the results (Oja & Smulyan, 1989). Generalization of results was the area Corey believed was most disparate between action research and traditional educational research. Traditional research, Corey explained, had as its goal broad generalization, whereas action research was concerned with improvement of practice within a certain context. Corey believed broad generalizations lacked relevance because in real practice, variables cannot be controlled. Action research, which took into account context and variables, resulted in findings that were relevant and meaningful, but not broadly generalizable.

Wann's article "Action Research in Schools" was published in the *Review of Educational Research* in 1953, the same year Corey's book *Action Research to Improve School Practices* was published. Wann asserted in his article that the six years previous had been a fertile time for action research in education, describing the various definitions that had been developed by scholars including Corey (1953), Mukerji (1953), Foshay and Goodson (1953), Cunningham and Miel (1947), Wann (1952), and Trager and Radke (1948). Common across these definitions was the action research process described by Corey (1953).

Wann (1953) also described results of more than 20 educational action research studies that had been published in the previous 10 years. These included studies on increasing good citizenship (Dimond, 1948; Meier, Cleary, & Davis, 1952), understanding group behavior of students in elementary and secondary schools (Cunningham et al., 1951), increasing responsibility and social understanding (Hardiman & Robinson, 1949), using interage grouping (Horace Mann-Lincoln Study Group, 1948), improving instruction (Corey, 1944; Lumley & Overn, 1947; Pflieger, 1949), and studying relationships in the classroom (Bush, 1949). Other studies focused on increasing teachers' responsibility for curriculum planning (Smith, 1952), improving curriculum (Evans et al., 1950), improving students' behavior (Foshay, 1951; Foshay & Goodson, 1953), effective school leadership (Corey, Foshay, & McKenzie, 1951), and increasing positive working relationships within a school setting (Nylen & Bradford, 1948). Wann also describes an action research study conducted by a state department of education (Adkins & Proudfoot, 1953), as well as several studies that used action research as a method of researching college teaching (e.g. Corey, 1953; Mukerji, 1953; Thomas, 1952).

According to Wann (1953), there were several efforts underway to promote, encourage, and facilitate educational action research. In addition to the Horace Mann-Lincoln Institute, Wann lists the Illinois Curriculum Program (Allen, 1949), the metropolitan cooperative school study movement (Romney, 1948), the Cooperative Project in Educational Administration (Carroll, 1952), which was sponsored by the Kellogg Foundation, and the Association for Supervision and Curriculum Development, which created a staff position to facilitate action research (Alexander, 1952).

The late 1940s and early 1950s was an exciting and productive time for educational action research. This occurred largely from the work coming out of the Horace Mann-Lincoln Institute at Teachers' College, guided by Corey as well as Foshay, which was followed and expanded by Shumsky, who had been a student at Teachers' College, and Hilda Taba (Noffke, 1994). McKernan (1987) refers to this era as "the period of cooperative action research" (p. 11) because during this time,

schools opened their doors to outside researchers. Practitioners were examining their own problems, but academic researchers were part of the mix, particularly in the area of curriculum development. As McKernan explains, "These were halcyon days for curricularists. They lived with hope" (p. 11).

This hope was to be short-lived, however. As Oja and Smulyan (1989) explain, there was a sharp decline in educational action research between 1953 and 1957 as academic researchers began to debate the merits of action research and question its rigor. This was partly in response to Corey's works, which included comparisons of action research to more traditional forms of educational research. In Corey's zeal for elevating and legitimizing action research, he inadvertently opened the door to attacks on its rigor and usefulness (McTaggart, 1985). The greatest attack came from Hodgkinson's critique of action research, published in 1957 in *The Journal of Educational Sociology*.

Claiming "research is no place for an amateur," Hodgkinson (1957, p. 151) asserted that teachers did not know the basics of research, had no time to engage in research, and were afraid to conduct research. Hodgkinson cast blame on schools of education, which were not adequately preparing teachers to read and use "professional" research, and teachers themselves, asserting, "Perhaps if students and teachers became interested and involved in 'professional' research, there would soon be no need for action research" (p. 152).

In making his case against action research, Hodgkinson (1957) directly addresses a number of points Corey had made about action research, providing counter-arguments against Corey's concept of generalization and the usefulness of research results. Hodgkinson believed that engaging in action research would cause teachers to become resistant to change and claimed that they would assume they had already figured out what worked and what didn't, based on their own research studies, and thus would be unwilling to do anything different (Oja & Smulyan, 1989). Hodgkinson made other assumptions as well and asserted that conducting action research would take teachers away from their teaching, would cost schools money, and would negatively affect the education students received (Oja & Smulyan, 1989).

In addition to these claims, Hodgkinson (1957) also questioned whether action research was really research. He stated that there were various definitions and descriptions of action research (e.g. field experimentation, cooperative research, service research) and that none of them were scientific in nature. Instead, action research was a more "common sense" approach that focused on solving practical problems. This focus, in Hodgkinson's view, made the process unscientific, since results were not valid or reliable outside of the particular context in which the study was conducted. Following his scathing critique of action research, Hodgkinson suggests, "Perhaps it would be better to define action research as quantified common sense rather than as a form of scientific, empirical research" (p. 146).

McTaggart (1985) asserts that it was Hodgkinson's critique of action research that led to its loss of legitimacy in the United States among educational researchers, and this critique was in direct response to the arguments Corey used in his attempt to legitimize action research. McTaggart (1985) states, "Corey had entered an argument he could not hope to win. Action research was judged against criteria,

or more correctly, against operational definitions of criteria it did not need to aspire to, at least as a primary goal" (p. 18). While researchers such as Taba and Shumsky continued their action research work, there was a significant decline in the field of educational action research over the next few decades.

With the work of Shumsky and Taba, action research started to shift away from the idea of teacher as researcher to a focus on the teacher as learner (Noffke, 1997). Noffke explains that during this period, action research was seen less as a way to produce knowledge than as a method for teachers' professional development. Oja and Smulyan (1989), citing Borg (1965), provide evidence of this shift, noting that Borg's text on educational research defined action research as a type of inservice training that was not focused on generalizable knowledge. Oja and Smulyan provide other examples of educational action research taking place in the United States in the 1960s, including Good (1963, in Oja & Smulyan, 1989), who described collaborative action research between scientists and teachers, and Schaefer (1967), who advocated for using action research to make schools centers of inquiry. Under this model, teachers worked on their own professional development, sometimes in collaboration with university partners, for the purpose of improving teaching.

Action research in education would not see its resurgence until the mid-1970s. In his 1970 article "What Ever Happened to Action Research?" Sanford posits that action research had not disappeared completely and provides several examples of studies taking place in or around Berkeley, California, where he lived and worked. These included school-based studies, as well as career programs for adults. Although by Sanford's own admission his knowledge of current action research studies was limited, he suggests that community psychology and evaluation research studies were, in fact, action research studies. Though he notes that action research still existed in the social sciences, he suggests a number of factors that led to its dwindling numbers.

A key point in Sanford's (1970) argument is that, although there seemed to be a proliferation of action research in the 1940 and 1950s, it was not a widely accepted research method in psychology or the social sciences. Sanford attributes this to the push to separate research from practice, explaining,

> By the time the federal funding agencies were set up after World War II, action research was already condemned to a sort of orphan's role in social science – for the separation of science and practice was now institutionalized, and it has been basic to the federal bureaucracies ever since. (p. 7)

Sanford (1970) attributed this separation to the higher status given to pure science research and to academics' desire to attain that status. Sanford condemned the current social science research practices that he deemed "elite" and that resulted in the treatment of research subjects as a "means rather than ends" (p. 18). Echoing Corey and other proponents of action research, Sanford suggests that social science research was "creating an enormous amount of waste in the form of useless information" (p. 18).

And yet, that waste was sanctioned and funded while resources for action research dwindled to nothing. Oja and Smulyan (1989) describe the federal funding research model for education used between 1957 and 1972 that provided money only to

university scholars and required these scholars to present their results back to the funding agency. There was no requirement to connect this research to practice or to use it to effect change in schools. This system would not change until 1972 with the Education Amendments Act and the establishment of the National Institutes of Education. Oja and Smulyan explain that it was at this time that the federal government started to fund educational research that "coordinated efforts for research, development, diffusion, and adoption" (p. 7).

Even with these changes, action research in education, particularly in the United States, would not pick up steam for many years. However, even in the interim, we find evidence that many of the ideals of action research remained. McKernan (1987) and McTaggart (1985), for example, point to Joseph Schwab's (1969, 1970) work in the area of curriculum development as one example. Schwab (1970) advocated for

> a totally new and extensive pattern of empirical study of classroom action and reaction; a study, not as basis for theoretical concerns about the nature of the teaching or learning process, but as a basis for beginning to know what we are doing, what we are not doing, and to what effect; what changes are needed, which needed changes can be instituted with what costs or economies, and how they can be effected with minimum tearing of the remaining fabric of educational effort. (p. 31)

Schwab's model favored practical approaches to research about curriculum, which could suggest a focus on the teacher to study practical concerns. Lacking in Schwab's model, however, is a role for the teacher in the research process. McTaggart (1985) states that while Schwab was interested in creating opportunities for teachers to engage in dialogue with curriculum developers and subject-matter experts as part of a new way of researching curriculum, he did not suggest that teachers serve as researchers in the process. This is in stark contrast to researchers such as Stenhouse, Elliott, and Adelman, whose curriculum development work in the mid-1970s focused on teachers and sparked the teacher-researcher movement in the United Kingdom.

2.3 The Teacher-as-Researcher Movement in the United Kingdom (1960s–1970s)

The 1970s were a rich time for educational action research in the United Kingdom. McTaggart (1985) attributes this renaissance to four factors: "a greater autonomy among teachers, a less influential conventional educational research establishment, the strains placed on existing curricula by the raising of the school leaving age, and an articulate group of advocates" (p. 34). One of these advocates was Lawrence Stenhouse, who led the Humanities Curriculum Project (HCP) from 1967 to 1972. Scholars typically attribute the HCP with igniting interest in action research as a form of teacher research. Hopkins (1993) asserts that, "Although teacher research was not an entirely new concept in the late 1960s, it is from this period that it became an identifiable moment" (p. 2).

The HCP focused on teaching controversial subjects – such as war, poverty, race relations, and education – to high schools students who were likely to leave school. The purpose of the HCP was "to develop an understanding of human acts, of social situations and of the problems of value which arise from them" (Stenhouse, 1971, p. 155). Stenhouse linked this work to the Progressive Education Movement, explaining that one goal of the HCP was to help teachers develop curriculum that would synthesize progressive and academic traditions. The challenge was to help teachers create classroom environments that encouraged students to consider different perspectives and sources of evidence, without teachers inserting their own views or biases. In this environment, the teaching style had to support "the exploration of evidence in the pursuit of understanding" (Rudduck, 1988, p. 33).

Stenhouse connected action research to the HCP's approach to curriculum development (McKernan, 1987). Because instruction in the HCP required teachers to change their roles from "imparter of knowledge" to that of "neutral chairperson," teachers were constantly having to refine their practices. To support this refinement, teachers sent audio and video recordings of their classroom interactions to the HCP research team, who responded to the teachers with guiding questions (e.g. *Do you press individuals to take up moral positions? If so, what is the effect on the individual concerned?*) (Stenhouse, 1983). This dialogue between teachers and the research team encouraged teachers to engage in collaborative, reflective inquiry. Teachers were, in a way, testing the HCP research team's hypotheses, but teachers were testing those hypotheses and modifying them "in the light of their own judgment" (Elliott & Adelman, 1975).

In Stenhouse's view, a curriculum project wasn't something that was pre-packaged and given to teachers to implement, but instead was a "diagnostic and experimental tool, designed to help teachers examine some of the fundamental problems of schooling" (Rudduck, 1988, p. 31). This was a clear shift away from the notion that teachers should simply implement curriculum provided to them from experts and researchers. Hopkins (1993) states that the HCP, "in its attempt to encourage a non-partisan and critically reflective attitude to teaching on the part of teachers, had a radical and controversial influence on teaching in British schools during the 1970s" (p. 2), but the HCP also was radical in its notion that teachers as researchers could be agents of change. A goal of the HCP was to help "liberate students from a disempowering dependency on authority figures in schools" as well as to liberate "teachers from dependence on 'academic' researchers and from a view of themselves as 'mere' practitioners" (Rudduck, 1988, p. 31).

While still involved in the Humanities Curriculum Project, Stenhouse, along with his colleagues John Elliott and Jean Rudduck, founded the Centre for Applied Research in Education (CARE) at the University of East Anglia. CARE's work centered on collaborative research with teachers engaged in self-studies of their practices and classrooms (Stenhouse, 1983). The work of CARE was instrumental in keeping the momentum of teacher research moving forward, and affiliates of CARE continued work on large-scale projects that connected action research to the teacher-researcher movement.

One example is the Ford Teaching Project (FTP) led by John Elliott and Clem Adelman. Elliott, who had been part of the HCP, drafted the FTP proposal to the

Ford Foundation and included in it a focus on action research so that participating teachers would be actively engaged in the research process (Adelman, 1993). The project, which centered on problems teachers encountered when using inquiry and discovery methods of teaching, ran from 1972 to 1975 and involved 40 teachers in 12 schools. Each teacher was asked to identify, understand, and resolve issues that arose in her or his classroom as they implemented inquiry and discovery teaching, and to document and share their work with other teachers in the project so comparisons could be made. Research personnel set up teams within and across schools to provide teachers with opportunities to share their experiences (Elliott & Adelman, 1975).

A primary focus of the project was to determine whether teaching problems and their solutions could be generalized across academic subject as well as across student factors such as age. For Elliott and Adelman (1975), action research included both the study of practical problems and strategies that would make it possible to generalize across studies. They explain, "Classroom action research aims both to contribute to an understanding and solution of the practical problems faced by teachers in the classroom situation and to the development of a theory of teaching" (p. 7). Elliott (1976) expressed this as a practical theory rather than a "theoretical" theory.

Elliott and Adelman (1975) acknowledged the divide between research and practice, explaining that while researchers questioned teachers' ability to be subjective and to produce accounts of practice that were reliable and verifiable, teachers questioned the relevance of research to practice. In his ongoing work with CARE, Stenhouse, too, continued to examine the research–practice divide and the role of the teacher in the research process, becoming increasingly critical of academic research. As he worked to define teacher research, and more broadly action research, he sought to find its place both in the academic tradition and in the world of the practitioner (Hendricks, 2002).

In addition to concerns about research methods that favored objectivity, generalization, and statistical control, Stenhouse was also concerned about power and authority and the status disparity between teacher and researchers (Hendricks, 2002). In his article "What Counts as Research?" Stenhouse (1981) asserted that "teachers must inevitably be intimately involved in the research process" and that "researchers must justify themselves to practitioners, not practitioners to researchers" (p. 113). In Stenhouse's view, both researchers and teachers had to be part of the research process if research was to have any meaning in education. To bridge the theory–practice divide, academic researchers provided the theory, and teachers tested theory in their classrooms (Hendricks, 2002). Stenhouse (1983) explains:

> If educational practice is not relevant to theory, then that theory is not properly the theory of education. The demand that both theorists' work and practitioners' work be expressed in terms of models which are hypothetical specifications of practice is what makes practice relevant to theory, and places practitioners in a position to send theorists back to their drawing boards with confidence. That authority should rest with teachers. (p. 214)

Stenhouse changed the conversation about theory and practice so that it no longer focused on simply providing teachers the right resources and teaching methods (Kemmis, 1995). Kemmis explains,

> Now we know that sustainable improvements in education cannot normally be achieved without teachers' commitment to the intellectual and scientific task of researching their own practice, as a part of the wider process of improving the curriculum, the school, and the work of education for communities and whole societies. (p. 74)

McKernan (1987) calls the effect Stenhouse had on action research "phenomenal," noting the many books written by both teachers and academics on educational action research – as well as networks of action researchers "willing to risk failure through inquiry" (p. 13) – that followed Stenhouse's work. Kemmis (1995) goes even farther in his assessment of Stenhouse's impact, claiming, "It might be reasonably argued that the British and Australian 'rediscoveries' of action research were built on the foundations Stenhouse laid, quickly leading to the development of the action research 'movement.'" (p. 77).

2.4 Growth of Educational Action Research Across the World (1970s–2000)

The work of those at CARE in the 1970 and 1980s, as well as others at the Cambridge Institute of Education, had a tremendous impact on the growth of action research in education (Noffke, 1997) in North America, Australia, and New Zealand. Elliott, Adelman, and teachers from the Ford Teaching Project brought their work in the United States, Canada, and Austria in the mid-1970s in a series of seminars and lectures, Kemmis – who had worked for a time at CARE – took the ideas of action research to Australia, and Munro, after studying in England, returned to New Zealand with an interest in using action research to encourage teachers' professional development (Adelman, 1993).

As educational action research spread throughout the world, it took on different forms and was connected to different purposes, some that were more technical and rational in nature, and others that focused more on critical and emancipatory ends. In Germany, for example, action research was related to the student movement in 1968, and grew not in opposition to the dominant research paradigm of the time, but as a way of "raising political consciousness and … for the formation of the *social movement* as the basis for individuals gaining more influence on their everyday practice through conscience participation" (Altrichter & Gstettner, 1993, p. 335).

In the United States, educational action research tended to focus on more practical concerns about teaching such as "changes in specific teaching practices within given parameters, rather than to situate action research as part of broad efforts towards reconceptualizing curriculum or schooling" (Noffke, 1994, p. 14). Action research continued to be discussed in terms of the research–practice divide, with some programs, such as the Interactive Research and Development

in Teaching projects in the 1970s, attempting to bring teachers into the world of researchers by teaching them how to use traditional research methods in the classroom. Oja and Smulyan (1989) describe several similar studies (e.g. Evans et al., 1981; Hord, 1981; Huling, 1981; Little, 1981) that examined collaboration between university researchers and practitioners. These studies focused on more technical concerns, such as improving student achievement, and did not give teachers the opportunity to consider engagements in more critical study of their practices.

Because education action research in the United States was concerned with technical practices, during this period some feared that it would be co-opted as a method for professional development and school reform (Anderson & Herr, 1999) and that academics would not embrace it as a legitimate form of research. As Anderson and Herr explain, "Academics tend to be comfortable with practitioner research as a form of local knowledge that leads to change within the practice setting itself, but are less comfortable when it is presented as public knowledge with epistemic claims beyond the practice setting" (p. 14).

In contrast to what was happening in the United States, action research proponents in Australia were moving away from British forms of practical action research and moving toward critical and emancipatory action research (Kemmis & McTaggart, 2007). Influenced by Lewin and Stenhouse, as well as by Habermas's critical social theory, action research was seen as a specific form of educational research that did not seek "additions to a knowledge base for teaching but a transformation of educational theory and practice toward emancipatory ends" (Noffke, 1997, p. 324). Action research was described as self-reflective inquiry conducted by practitioners for the purpose of critically examining and understanding their practices (Carr & Kemmis, 1986). It provided opportunities for "democratizing the power differentials in social groups and institutions" (Somekh & Zeichner, 2009, p. 8).

In the United Kingdom, action research took on both practical and technical issues as well as those that were critical and emancipatory in nature (Noffke, 1994). The growth of action research was supported in several ways, such as through small grant-funded projects and in a few school districts where there was a sustained emphasis on practitioner research (Adelman, 1993). Also, several graduate programs began to offer courses in action research and to support students' action research dissertations (Noffke, 1997). Another development in the United Kingdom was the creation of the Classroom Action Research Network (CARN), established in 1976 to continue the work of the Ford Teaching Project with teachers in primary and secondary schools. Early on, CARN supported educational action research efforts in Germany, Austria, and Switzerland, as well as publications and conferences that introduced action research to a larger audience of practitioners and academics (Noffke, 1994). In 1993, CARN established the first international journal in the field, the *Educational Action Research* journal, and is now an international network with members from fields such as education, health, and public service.

During this time, other action research networks were established in England, Ireland, Australia, Canada, and the United States (Adelman, 1993; Hopkins, 1993). These include the Teacher Research Network of Northern Ireland, the

Action Learning-Action Research Association in Australia, the Participatory Action Research Network at Cornell University, and the Pennsylvania Action Research Network. An action research network in Ontario led to the creation of the journal titled *Ontario Action Researcher* (now the *Canadian Journal of Action Research*), which was funded through the Elementary Teachers' Federation of Ontario in collaboration with the University of Nipissing (Clausen, 2017). These are but a few of the networks established at this time, and there are far too many to list here. Others were established in local school districts, within universities, and as part of educational organizations.

At the close of the twentieth century, educational action research had spread to much of the world. It became part of both preservice and inservice education – including graduate programs – and there was a significant increase in the number of action research publications, including textbooks on how to conduct action research (Noffke & Somekh, 2009). Some educational journals (e.g. *Educational Leadership*, *Phi Delta Kappan*) dedicated entire issues to action research, and others (e.g. *English Journal*, *Teaching Children Mathematics*) began publishing action research studies (Hendricks, 2017). In addition to its acceptance as a method for teacher professional development, action research was frequently included as a methodology in funding proposals for research projects in developing countries (Noffke & Somekh, 2009).

2.5 Recent Developments in Educational Action Research (2000–Present)

In the past two decades, the field of educational action research has continued to grow at an astounding rate. In their preface to the *Palgrave International Handbook of Action Research*, Rowell et al. (2017) illustrate this growth by noting that a Google search of the term "action research" results in 165 000 000 hits in less than half a second, and the Academic Search Premier database includes over 16 000 references to action research. In the time this book takes to go to press, there's no doubt those numbers will increase significantly.

In all this growth, there have been some losses, too, most notably the closing in 2015 of the Center for Applied Research in Education that was founded by Stenhouse, Elliott, and others. New centers and networks have been established, however, such as the Action Research Unit at Nelson Mandela University in South Africa and the Action Research Network of the Americas. Smaller networks have been created, too, by practitioners themselves. One example is the Network for Educational Action Research in Ireland, which was founded by four teachers who engaged in self-study thesis projects at the University of Limerick under the guidance of Jean McNiff. There are also several new action research journals that are either specific to the field of education or include sections on education. These include the *Asian Education Action Research Journal*, the *Canadian Journal of Action Research*, *Action Research in Education* (Greece), *Action Research*, the *Journal of Teacher Action*

Research, i.e.: inquiry in education, the *Journal of Educational Change*, and *Networks: An Online Journal for Teacher Research*.

In order to understand various forms of educational action research that have developed across the world, Somekh and Zeichner (2009) examined 46 action research articles published from 2000 to 2008 across several countries. In each study, they considered the study's purpose, its contextual conditions, the philosophical stance toward teachers and their learning, the individuals who sponsored the research, incentives for conducting the research, forms of inquiry used, the relationship of action research to other research, and ways the research was represented to others. From this analysis, Somekh and Zeichner derived five variations of action research.

First, they describe action research that appears in response to political upheaval and transition. As was the case with Collier in the 1940s who saw a new form of research as a way to improve the social conditions of Native Americans, Somekh and Zeichner provide recent examples of critical and emancipatory action research in Namibia, South Africa, Russia, and Spain that promote social justice. The second variation of action research they identify is state-sponsored school reform in Singapore, Japan, and Hong Kong, and the third is the co-opting of action research to control teachers, which has largely taken place in the United States. Fourth is action research led by universities in partnership with schools or governments to support action research communities in Austria, South Africa, Palestine, Thailand, and China. Action research that is locally sponsored and sustained is the fifth form of action research. Typically organized by teachers themselves to support their professional development, these grassroots efforts have occurred in the United States and have endured because of strong teacher support.

More recent accounts of educational action research are described in the *Palgrave International Handbook of Action Research* (Rowell et al., 2017). Included are descriptions of educational action research in Nordic countries where teachers, researchers, and other educational specialists collaborate in study circles to produce knowledge collectively and beyond the theory–practice boundary, as well as a number of other pieces that include historical accounts of the development of educational action research in South Africa, Sri Lanka, South Korea, Mongolia, and Brazil. The themes outlined in Somekh and Zeichner (2009) are evident in these works and portray the many ways educational action research is defined, used, and conceptualized.

The field of educational action research has continued to grow, and while there seems to be a wider acceptance of action research as a legitimate field of research, questions remain about methodology, rigor, power, and purpose. These questions have been debated throughout the history of action research, but it may be time to put differences aside and instead embrace the diversity inherent in action research rather than continue to debate Stenhouse's question, *What counts as research?* In reading the remaining chapters in this book, it may be worthwhile to consider how different methods, purposes, and participants fall under one "big tent" rather than continue to argue about what is legitimate and meaningful, as Rowell et al. (2017) suggest.

Notes

1 Gunz (1996) claims that J.R. Moreno, a contemporary of Lewin's, was the actual founder of action research, and that Lewin's work was influenced by Moreno's studies of integrating research, theory, and practices, as well as the role of research participants as co-researchers. See also Altrichter and Gstettner (1993).
2 McTaggart (1985) reports that this article was based on an address given in 1946 at the 25th Annual Institute for Social Research in Chicago.

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3

The Body of Literature on Action Research in Education

Michelle Vaughan

Almost 30 years ago, Cochran-Smith and Lytle (1990) called for an exploration of "teacher research in the academy and in schools" and argued that research produced by teachers should play an integral role in school reform and the generation of knowledge in the field. Today, discussions about action research are plentiful across multiple disciplines, and although there is still insufficient evidence about its impact on school reform, its growth in the academy is well documented. This chapter is not meant to provide an historical account of action research or an exhaustive examination of all the literature published in the field. The focus is on its extensive use in multiple educational contexts: PK-12 classrooms, undergraduate programs, and graduate/doctoral programs. The chapter also includes brief case studies that illustrate key themes in the discussion and provide a closer look at the work being published – locally and globally – in the field of action research today.

3.1   Action Research in PK-12 Education

A primary focus of action research is the improvement of classroom practice and, as a result, student learning. Mertler (2014) highlights four distinct ways action research is used in education: "to effectively connect theory to practice, to improve educational practice, to empower teachers, and as a means for promoting professional growth" (p. 22). This section investigates the literature documenting the role of action research in PK-12 contexts, extending this discussion to district and community use when it connects to PK-12 classrooms.

3.1.1   Action Research at the School Level

Action research in PK-12 classrooms can come in a myriad of forms and often serves multiple purposes. It can be a school-wide initiative with the goal of improving policies, curriculum, or programs for many students (Cooper & White, 2012; Kristmanson, Lafargue, & Culligan, 2011) or take place in a single classroom, perhaps even addressing the needs of an individual student

(Argyropoulos & Nikolaraizi, 2009). Regardless of the origin or design, those involved with action research at a classroom level reap many rewards simply through their involvement with the process.

Professional learning communities (PLCs) are an ideal fit for action research as the purpose of a PLC is to collaborate with educators to improve student learning. In a PLC, teachers work together to understand practice as well as change their practice, and action research can be the vehicle used to implement and study the initiatives discussed by the group. Kristmanson, Lafargue, and Culligan (2011) documented a group of secondary teachers grappling with the best use of portfolios to capture student learning in foreign language courses. Over two years, the teachers involved in the PLC and the action research project developed both a philosophical stance toward the way the portfolios and standards informed their practice and an action plan for all teachers to use within their practice. While collaborative action research may have its challenges, "it holds promise as a means of exploring a particular pedagogical idea or initiative. It allows for dynamic and reflective means to encourage both inquiry and action" (p. 64). When action research serves as a vehicle for collaboration, there can be an increase in professionalization as well as socialization (Schoen, 2007). In a research project that involved 50 teachers working together on action research projects related to science pedagogy, Goodnough (2011) explains that the use of collaboration within the project provided support for "their action research through self-reflective spirals of planning, acting, observing, and reflecting" (p. 77). Goodnough further examined 10 of the 50 participants' experiences before, during, and after participation in action research, and noted an increase in their self-confidence as teachers, deeper knowledge of professional practice, and altered and more complex understandings of the students in their classrooms.

A closer relationship with students – whether they are participants in the study or co-researchers – is another well-documented outcome of the use of action research in the classroom (Brydon-Miller & Maguire, 2009; Goodnough, 2011). Strengthening the relationships between student and teacher and providing a voice for students can have a direct impact on their learning and motivation as a learner. Additionally, action research has been used successfully to support the needs of individual students in the classroom through projects that explore successful inclusion models and strategies. Argyropoulos and Nikolaraizi (2009) documented the experience of general education teachers as they sought to adjust their own teaching practices to include students who were blind and deaf. The project "resulted in the development of inclusive and collaborative thinking and the adoption of relevant teaching practices which promoted the children's access to the curriculum and supported the teachers' and student teachers' professional development" (Argyropoulos & Nikolaraizi, 2009, p. 139).

Not only do teacher-researchers become more comfortable with the research process, but the use of action research in classrooms continues to support their own development as a professional, and can, as a result, be a vehicle to help transform the profession (Dana & Yendol-Hoppey, 2014). Goodnough (2011) adds that it is the "ongoing professional dialogues" that provide a "context for sharing and generating ideas, as well as enhancing the professional development of the teachers involved" (p. 82). The following case study highlights the use of collaborative action research as a catalyst for change.

Case Study: Inclusion in Schools in Cyprus

At a village school in Cyprus, with 164 students and 16 teachers, two teachers and one academic specialist came together to conduct a collaborative action research project to study their efforts of developing inclusive practices in the classroom. Through the use of videotaped lessons, peer observation, and interviews, three themes emerged that addressed the purpose of the study. First, the research team discovered that the process of collaborative action research caused the lead teacher to differentiate her planning and, as a result, her teaching. Becoming a part of the research team and discussing her lessons with others increased her reflection and drive to discover "alternative and additional teaching methods" for her lessons. The research project also gave the lead teacher the opportunity to develop leadership skills, and at the conclusion of the project, she showed more confidence and independent thinking. It is important to note that the inclusive practices in this classroom significantly increased, but attention should be paid to the fact that the process of participating in a collaborative action research project was the catalyst for change. Those involved in the project noted that "inclusive practices in Cyprus school, then, will not be approached as simplistic recipes or trite formulas but as social learning that will be developed in those small networks and communities of practice." (Angelides, Georgiou, & Kyriakou, 2008, p. 566)

3.1.2 Action Research to Overcome District-Level Challenges

Action research has been instituted in school districts to understand and mitigate problems like decreasing gender gaps in achievement (Clark, Lee, Goodman, & Yacco, 2008) and adequately implementing technology into classrooms (Clarke, 2012). Clarke (2012) examined a professional development program at a large Colorado school district that consisted of 37 team leaders who each led groups of four to six educators through strategies that promoted methods focused on teacher research-based qualitative inquiry. Using action research allowed administrators to study the integration of technology into their district, while simultaneously empowering educators and engaging students. While district-level use of action research is not yet commonplace, the following case study (Mastrorilli, Harnett, & Zhu, 2014) highlights a partnership between a large urban district and local arts organizations, as they worked together to study the impact of an innovative arts program.

3.1.3 K-12 Partnerships with Universities

Universities, schools, and teachers have formed partnerships to conduct meaningful research and apply current knowledge in the field of education (Martinovic et al., 2012). Collaborative action research between universities and schools, if properly and wholeheartedly conducted, is a useful strategy in strengthening school–college linkages that ultimately help each institution to learn and benefit from the other (Yayeh Worku, 2017). These partnerships can enhance practitioners' knowledge, skills, and confidence in performing action research, making it an

Case Study: Arts Achieve

Founded in 2011, The Arts Achieve: Impacting Student Success in the Arts project is a partnership between the New York City Department of Education (NYCDOE) and five of the city's premier arts organizations. "Arts Achieve" provides professional development to art teachers over a three-year period. The goal of this project is to improve the quality of art teachers' instruction through inservice professional development where teachers design both formative and summative assessments to capture the increase in students' arts achievement. Developed by a professional learning committee composed of art teachers, they incorporate action research to review student data and examine the impact on current instructional practices. Additionally, each art teacher pairs with a facilitator from the arts organizations to support them over the course of the project. These specific professional development activities included on-site consultancies, assessment retreats, inter-visitations, and an online community. Arts Achieve also provides participating art teachers with resources to support this work, such as units of study and technology bundles. Using action research, teachers were able to use student scores to inform their instructional methods and adjust practices to see the impact on the next assessment. (Mastrorilli, Harnett, & Zhu, 2014)

important practice in the schools (Torrance & Pryor, 2001). Evans, Lomax, and Morgan (2000) created a community of teacher-researchers through an initiative in the United Kingdom where university researchers taught action research to PK-12 teachers. Teachers worked with university researchers to investigate their own instructional methods and found action research to be a new way of approaching the idea of evidence-based practice. Access to educational researchers at the university level – particularly those with extensive action research backgrounds – provides an opportunity for PK-12 teachers to learn about research from those who practice it daily (Ainscow, Booth, & Dyson, 2004). Additionally, the partnership connects university researchers with classroom and school issues that are happening in real time.

University and school partnerships are not without their challenges. Conducting action research within schools is complex and can bring attention to "tensions and contradictions within school, district, and national policies" (Ainscow, Booth, & Dyson, 2004, pp. 135–136). Universities and schools each have unique cultures, and a partnership can be challenging when there is an uneven commitment to the relationship (Crocco, Faithfull, & Schwartz, 2003). A successful partnership can transform a learning environment, but often requires additional staff or a liaison to ensure its sustainability. Teachers report that universities are a valuable resource for information and that collaborative research is a meaningful form of professional development. They also encourage university members to continue to "live" in the schools and classrooms to gain a better sense of what needs to be researched and to provide mentoring and coaching (Fisher & Rogan, 2012). While teachers may report a feeling of disconnection

with research (Martinovic et al., 2012), they describe feeling connected to the researchers and research conducted through university partnerships within their school. This is significant as it highlights the potential outcomes of physically closing the gap between university and school research. The case study below discusses the ARISE program, a partnership between a university and K-12 students to investigate strategies in which the arts could be used to increase engagement in an urban high school (Brown, 2010).

Case Study: ARISE Program

Project ARISE took place in an urban K-12 special education alternative school and was built on the principles of participatory action research (PAR). The research team included nine youth researchers, two doctoral students, and a university faculty member. Together, the research team explored the experiences of the nine youth researchers, who were "excluded from mainstream learning environments," through a weekly seminar titled Social Action Research Seminar. The research team used the seminar as a course to prepare students for life outside of and after high school while also collaboratively studying their experiences. Four trainings for preservice teachers were created by the research team that centered around key themes the research team had discovered in student experiences. Project ARISE helped the youth researchers to become an "authority" through their engagement with complex ideas about their own schooling conditions. They commented that the seminar and research were "more mature" than other academic tasks they were exposed to and gave them an opportunity to prove they were as "competent and as worthy as they came to know themselves to be" (p. 11). Project ARISE represents the power of collaborative action research and the impact a quality research experience can have on participating students. (Brown, 2010)

3.2   Action Research in Undergraduate Teacher Education

Action research and related forms of teacher inquiry have been used to study the preparation of preservice teachers and other undergraduates in education programs (Darling-Hammond, 2006). Teacher education programs have varied the ways they implement action research, some partnering with professional development schools (or PDS) programs (Levin & Rock, 2003; Rock & Levin, 2002), and others implementing action research through internships or student teaching (Katsarou & Tsafos, 2013; Smith & Sela, 2005; Zambo & Zambo, 2007).

When constructing the twenty-first-century teacher education program, Darling-Hammond (2006) explains that much of what teachers need to know to be successful is invisible to lay observers. This idea supports the misconception that teaching requires little formal study and that teacher education programs are less rigorous than other subject areas. Darling-Hammond outlines three

critical components of high-quality teacher preparation programs: tight coherence and integration among courses, coursework, and clinical work in schools; teaching theories to guide instructional practices; and creating close, unique relationships between each teacher and student. She concludes by stating that these components can be met by incorporating emerging pedagogical practices such as action research into teacher preparation programs. Darling-Hammond recognizes action research as a vehicle to support the development of quality teachers, and its use within teacher preparation programs continues to grow.

3.2.1   Preservice Teachers "Doing" Action Research within Their Coursework

Action research has the potential to improve instructional practice, and there are additional benefits when preservice teachers engage in action research during their coursework (Carboni, Wynn, & McGuire, 2007; Price, 2001; Zambo & Zambo, 2007). Price (2001) contended that if appropriately constructed, an action research course could powerfully influence the shape of one's teaching practice. Conducting action research teaches preservice teachers to combine theory and knowledge of their students to inform their instructional practices, allowing teachers to identify and react to problems in the classroom before they occur (Au, 2002; Katsarou & Tsafos, 2013) and build questioning and research skills that they can apply to their teaching (Vaughan, Baxley, & Kervin, 2017). Additionally, action research can assist preservice teachers in becoming critical and reflective thinkers who make informed decisions about classroom practice (Beisser & Connor, 2004; Katsarou & Tsafos, 2013). Research in the field is summarized in Table 3.1 in order to provide a synthesis of dispositions that have been developed through the use of action research in undergraduate courses, as well as the varied models of instruction used in research integration (Vaughan, Baxley, & Kervin, 2017).

3.2.2   Action Research within Professional Development Schools (PDS)

At a PDS, preservice teachers have the opportunity to spend a significant amount of time in the school where they will be performing their internship as a result of the relationship between their university and the school site. PDS sites are an interesting context in which to practice action research with preservice teachers because there is often a higher number of field experience hours and students have additional access to classrooms in a consistent context. Rock and Levin (2002) examined how collaborative action research projects can enhance preservice teacher development specifically at a PDS site. Paired with an on-site teacher-educator mentor, preservice teachers conducted action research projects during a year-long teaching internship. This experience supported the development of the personal teaching theories of the preservice teachers and increased their awareness of the needs of their students as well as the process of inquiry and reflection. While action research can be challenging for a novice teacher, the added support from a veteran teacher also highlights the importance

Table 3.1 Examples of undergraduate research from the education field.

Author(s)	Population	Mode of instruction	Dispositions developed
Beisser & Connor (2004)	Preservice teacher education students at a large Midwest university	Undergraduate students in action research course	Students become critical and reflective thinkers
Carboni, Wynn, & McGuire (2007)	Seniors in the elementary teacher preparation program at Duke University	Action research project during student teaching	Lays the foundation for long-term practices of observation and reflection
Ferri & Wilches (2005)	Preservice foreign language teachers at a University in Colombia	Action research project during methodology and administration leadership course	Develops research skills through exploring pedagogy, confronting theory, and self-reflecting
Harrison, Dunn, & Coombe (2006)	Preservice teachers in early childhood education program at a university in Australia	Research projects in undergraduate courses	Provide students with skills to conduct and use relevant research
Lassonde (2009)	28 undergraduate teacher candidates at a state-affiliated university located in upstate New York.	Action research project in language and literacy course	Introduces students to professional language while teaching them to inquire and reflect in critical ways
Moore & Gilliard (2008)	Preservice teachers in early childhood education program at a small university in Montana	Action research project in early childhood professionalism course	Students developed more effective forms of instruction and assessment
Smith & Sela (2005)	Preservice teachers from one of the largest teacher education colleges in Israel	Action research project during student teaching	Creates a focus on systematic improvement and personal reflection, and fosters a sense of community
Strand (2006)	Senior music education students at a small liberal arts college	Action research project during student teaching	Increased development of critical thinking skills and reflective capabilities
Zambo & Zambo (2007)	Preservice teachers at a public university in the southwestern United States	Action research project during practicum and student teaching	Improved problem-solving skills and self-efficacy

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of collaboration in learning for preservice teachers. Levin and Rock (2003) explain that "the action research project assisted them in developing meaningful and collaborating mentor-mentee relationships" (p. 145). PDS sites can be an ideal place for preservice teachers to learn action research with support from university researchers and veteran teachers.

3.2.3 Preservice Teachers Conducting Action Research during Student Teaching

Student teaching is an idyllic place to integrate action research into a teacher education program, as this is often a transition time from operating as a student to working as a teacher. However, the learning curve for many preservice teachers in student teaching is steep; they are learning multiple roles simultaneously, and conducting research may be outside of their survival mode (Smith & Sela, 2005; Zambo & Zambo, 2007). A lack of exposure to academic writing, question development, and time restraints are reported challenges of conducting action research in student teaching. However, students also report a strengthened education vision and self-identity as a teacher, as well as a significant increase in their knowledge of research strategies (Smith & Sela, 2005). Zambo and Zambo (2007) conducted an action research project with undergraduate teacher education students during their preservice teaching internships. In addition to previously reported challenges, they also found that cooperating teachers were not supportive of the preservice teachers conducting action research. This is an important reminder that attention must be given to how student teachers are conducting action research and whether they have buy-in from the site where they are studying. Lastly, preservice teachers often rely on the support and knowledge of their cooperating teachers, making it essential to ensure that cooperating teachers have the knowledge and skills necessary to conduct action research themselves.

3.2.4 Teacher Educators Using Action Research to Improve Coursework

Through research already shared, it is clear that both teachers and their students benefit from being in a classroom where action research occurs. This section advances that conversation by highlighting the action research being conducted by teacher educators within their education courses and the impact it has on the curriculum (Hunzicker, 2016; Moles & Wishart, 2016), their practice (Hogan & Daniell, 2015; Lassonde, 2009), and the preservice teachers with whom they work. For the purposes of this chapter, literature using the term "self-study" is also included as a form of action research, as it is often used to describe professors studying their own practice (Hogan & Daniell, 2015; Lassonde, 2009). The reasons teacher educators choose to engage in their own action research vary. Lassonde (2009) documented her struggle and success infusing critical inquiry into her elementary education courses and discovered that "the way I developed as an inquirer was highly reflected by the way I was able to help the candidates become inquirers" (p. 48). As her students grew in their own abilities to take a critical stance, Lassonde was able to recognize her own growth, and data revealed her instructional approaches were taking hold. Modeling reflection and classroom inquiry for preservice teachers gives them the opportunity to see good teaching in practice, in addition to exposing them to action research. Moles and Wishart (2016) explain that an action research project can be "as much a learning journey for us as it has for the students" (p. 12). Building a stronger relationship

with students is often an outcome of an action research project conducted in a PK-12 classroom, yet it is important to note that relationship building supports student learning at any age and can be a missing element in higher education classrooms. By studying his preservice art methods course, Soganci (2016) not only discovered how to improve the curriculum in his course but created an environment where his students had a voice, strengthening their connection to the course, content, and their professor. The following case study details a three-year examination of an early childhood teacher preparation program in New Zealand by two professors dedicated to their practice and their students' success (Hogan & Daniell, 2015).

Case Study: Initial Teacher Education Program in New Zealand

> Following consistently mixed student evaluations of a course within their teacher education program, the authors began a three-year self-study in which they examined the impact of changes made to assignments and instruction via personal journals and student feedback. The authors were charged with co-teaching the course, and their decision to teach collaboratively provided a context for mutual support and risk-taking. As a result, student learning and engagement increased in the course and both professors experienced meaningful growth in their practice. One author documented her use of storytelling to help the theories she was teaching come to life for her students, while her co-teacher shared evidence of the evolution of her own thinking about feminism in her teaching. The process of studying their own practice also models action research for the preservice teachers in their classroom, demonstrating how veteran educators continue to evolve throughout their career. The authors "believe that our teaching has opened up possibilities for renegotiating the teaching and learning space between student and teachers." (Hogan & Daniell, 2015, p. 9)

3.3 Action Research in Graduate Teacher Education Programs

The use of action research and related forms of teacher inquiry has a secure place within graduate teacher education programs and has been shown to support teacher development and change (Esposito & Smith, 2006; Sela & Harel, 2012; Warren, Doorn, & Green, 2008). While the way various programs may choose to implement the methodology differs, their use of action research within coursework and communities shows that teacher education programs value action research as a way to incite change:

> Action research as a methodology provides teachers with opportunities to build and sharpen the dispositions that create reflective and collaborative teacher leaders. The flexibility of action research as a methodology allows

for the simultaneous development of research skills and practitioner dis-
positions. The stated goals for the integration of action research for teach-
ers suggest the individual structure and format for the programs. This is
perhaps the most valuable "sell" for graduate programs as they can con-
tinue to address the need to develop more knowledgeable teachers,
encourage improvement in student learning in schools, and contribute to
the professionalization of teaching (Vaughan & Burnaford, 2015, p. 286).

Vaughan and Burnaford (2015) go on to outline three programmatic goals
commonly seen in the literature for the use of action research in graduate teacher
education programs: action research as reflection, action research as participa-
tory and critical inquiry, and action research as preparation for teacher leader-
ship. In addition to these programmatic goals, the use of action research can
have an impact on the personal and professional growth of the educators who are
a part of the process. Teachers perceive changes in their understanding of their
professional expertise, their professional identity, and their professional relation-
ships (Warren, Doorn, & Green, 2008). Through their analysis of data collected
from 35 graduate students within an action research course, participants
expressed an increased "awareness of who and what needed to change," as well as
a "greater awareness of their role as change agents" (p. 266). Integrating action
research coursework within programs can serve as an instrument for classroom
and community change. Many programs are moving beyond a one-course model,
and this section outlines how action research coursework is being used to
support both classroom and community research in current graduate teacher
education programs.

3.3.1   Classroom Research as Part of Coursework

Graduate coursework often directly benefits the student enrolled in the program;
however, in graduate teacher education programs that embed action research,
the potential benefits reach significantly further. Action research coursework
that provides opportunities for teachers to research their own classrooms has
benefits on multiple levels. First, there is the impact on student learning and
experience that occurs in the spaces where graduate students conduct the study
(Rogers et al., 2010). Then, there is the effect on the learning and empowerment
of the graduate student as they make the transition from teacher to teacher-
researcher (Esposito & Smith, 2006; Sela & Harel, 2012; Warren, Doorn, & Green,
2008). Finally, there is a reported influence on the course instructor teaching the
action researcher course (Brown, Dressler, Eaton & Jacobsen, 2015; Esposito &
Smith, 2006; Turner, 2010).

Becoming researchers within their own classrooms arms teachers with a skill
set to systematically explore problems and contribute to a solution. Teachers can
work "towards a solution, even if only a partial one, to a problem they had been
suffering from for a while" (Sela & Harel, 2012, p. 6). The job-embedded nature
of action research coursework, as well as the exposure to professional literature
on their research topic, supports the simultaneous development of teachers as
researchers and academics. Reaching into higher education classrooms as well,

Crookes and Chandler (2001) report on the impact action research coursework has on graduate assistants within a foreign language department. While many of their students had strong backgrounds in language, they lacked teaching experience and the ability to study their own teaching. They argue that "we provide these future FL [foreign language] teachers with tools, such as action research, through which they can better assess teaching and learning, thus inculcating useful procedures for lifelong learning, review, and improvement" (p. 138). Through the development of an action research methods course, students reported that the use of journals and reflection had a significant impact on their relationships with individual students and their own understanding of the nature of action research. Esposito and Smith (2006) also examined how coursework and the action research process impact the teacher-researcher through their emphasis on journaling. Exploring reflective journals from both the graduate student and the course instructor, we begin to understand that engaging in action research can be a daunting task, even for an experienced teacher. Through the support of course instructors, peer research groups, and even their own students, novice action researchers consistently report feeling empowered as a teacher and as a researcher (Esposito & Smith, 2006; Sela & Harel, 2012; Turner, 2010; Warren, Doorn, & Green, 2008). Graduate students do not necessarily need to be teaching full-time in a classroom to experience the action research process. Strategies – such as collaborative action research or research conducted in non-traditional environments – still allow students to grow as researchers (Gerlach, 2000). Many of the programs that embed action research into coursework also use research cohorts to support students in their classroom research (Brown, Dressler, Eaton, & Jacobsen, 2015).

Teacher education graduate programs also report several concerns or challenges that they encounter using action research in their programs. Time constraints continue to be an issue regarding the implementation of action research projects (Crookes & Chandler, 2001; Hine, 2013; Shosh & Zales, 2007), as well as garnering support from their home schools and integrating research into the demands of their current teacher roles (Sela & Harel, 2012). At Moravian College, a redesign of their Master of Education program embedded action research in four foundational courses throughout the program and culminated in a three-course thesis sequence in which students complete an action research thesis and present their findings to a self-selected committee. Through interconnected coursework and a heavy focus on studying their practice, graduates of the program reflected on their coursework, commenting that "graduate education coursework is and should be demanding, as long as challenges are clearly and consistently linked to classroom practice" (Shosh & Zales, 2007, p. 269).

3.3.2 Community Research as Part of Coursework

Action research within a teacher education graduate program is not limited to classroom research. Just as far-reaching as the methodology itself, we can see significant variety in how various programs choose to embed action research in their program and courses. This section will describe how programs have integrated community research and why they use action research to teach their students "a

process for social change" (Storms, 2013, p. 35). Stringer (2015) explains the role action research can play in achieving equity in education. He asserts that the participatory processes of action research can help to understand and develop educational and community programs that are compatible with the contexts in which our schools currently operate (p. 362). As an example, he highlights a project conducted by a high school teacher who collaborated with a local police agency to develop and implement a series of learning activities that resulted in an improved understanding of police work and supported the development of positive relationships between students and police officers. He concludes by pointing out that it is the foundational participatory and collaborative processes that define action research as a methodology that best fits the need to provide educational change that acknowledges the value of all stakeholders (pp. 371–372).

By integrating community research into coursework, students within a teacher education program are getting meaningful and relevant lessons about the roles parents and the surrounding community and culture can and should play in classroom curriculum. Hamer et al. (2013) used a participatory action research approach at the University of Toledo to study the Principles of Kwanzaa in a surrounding neighborhood as a basis for culturally relevant teaching. Thirteen graduate students, paired with four undergraduates and 15 community members, participated in the semester's work, which resulted in the development of three cases that illustrated the Principles of Kwanzaa within the neighborhood. Graduate students developed relationships with the schools' communities and understood the necessity of sustaining those relationships as a basis for culturally relevant teaching. Storms (2013) echoes the use of action research to support culturally relevant teaching and discusses how action research could help teachers connect meaningful and relevant findings on a micro-level (personal or professional) or macro-level (social issues) in order to understand larger social justice issues (p. 35). The use of reflection helps students become more self-aware, and the dialogue that takes place within an action research course can broaden perspectives in a supportive environment. The case study below looks closely at Project SELF, an interdisciplinary graduate program at Portland State University focused on serving young children with disabilities and their use of participatory action research (Blasco, Falco, & Munson, 2006).

Case Study: Project SELF

Funded by a grant from the United States Office of Special Education Programs (OSEP) from 1998 through 2001, 77 graduate students completed Project SELF. Students completed coursework, field experiences, and student teaching in their own areas of specialization. However, all students participated together in monthly seminars throughout the program that focused on concepts of self-determination and advanced competencies for services to young children with disabilities. In addition to the seminars, faculty members divided all students into interdisciplinary, participatory action research teams of four or five students. Each team was matched with a family of a child with significant and multiple disabilities

> to implement a project that supported foundations of self-determination for the child. As the capstone project for the program, the research was conducted in four phases: informal assessment, planning, implementation, and reflection. Final research presentations and reports included the reflections of family members as well as the research team. Students in Project SELF reported working with families as a strength of the program, preparing them to develop relationships in their future careers. They also showed an increase in their understanding and application of the principles of self-determination in their work with young children and families. While time constraints were a challenge to completing the projects, the involvement of parents in the project resulted in newly acquired skills and partnerships that lasted after the conclusion of the research. (Blasco, Falco, & Munson, 2006)

Graduate teacher education is a natural fit for the principles of action research, and the flexibility of the methodology allows individual programs to tailor its use within coursework. As many graduate students are teacher leaders in their own schools, action research can serve as a vehicle for change that starts in the classroom and local communities.

> Ultimately, the solutions-based focus, emphasis on fostering practitioner empowerment, and pragmatic appeal of action research collectively render this research methodology a worthwhile professional development activity for teachers. There is unlimited scope for teachers wishing to develop "customized" action research projects of their own, as topics for investigation are as multifarious as the daily vignettes evidenced in the teaching profession. To conclude, universities must include action research as a core unit in teacher preparation degree programs – either at the undergraduate or postgraduate level, as the action research sequence holds significant value to improving practice within classrooms, schools, and communities. (Hine, 2013, p. 161)

3.4   Action Research Within Doctoral Programs

The historical divide that exists between traditionally generalized research produced by university researchers and the inquiries completed by teachers that may focus on the specific needs of one's own classroom has privileged basic research and marginalized applied research (Cochran-Smith & Lytle, 2009; Herr & Anderson, 2015). Doctoral students represent the future of educational research, and in an attempt to close that divide and prepare them to address the needs of those teaching and learning in today's classrooms, doctoral programs have been challenged to provide opportunities for students to study within schools and classrooms, instead of about and on them (Levine, 2007).

3.4.1 Action Research as Part of Coursework

Action research coursework within a doctoral program gives students access to a methodology that allows them to hone their research skills and better understand community and classroom issues through collaborative efforts to enact change. Within the Doctor or Education (EdD) program at the University of Birmingham, UK, action research is both required coursework and the methodology for their theses (Pilkington, 2009). While the focus of this program is on practitioner research (PK-12 and higher education), the reported benefits and challenges are applicable to those doctoral students who may not choose to teach as part of their academic careers. The action research coursework and experiences were reported as "providing positive opportunities, through reflection on practice, to generate whole new approaches to teaching, to discover new insights and understanding of learning processes, and to hold up a critical light to the effect of policy-related change" (Pilkington, 2009, p. 172). Similarly, Amrein-Beardsley et al. (2012) report that the multiple cycles of action research included in their doctoral coursework were "critical in influencing the local ecologies of their education settings" (p. 114).

Doctoral programs are using creative course models to give classroom research experiences to doctoral students who may not be current practitioners. Arhar et al. (2013) discuss creating a "third space" in a university-school partnership where doctoral students enroll in a course that is described as a research apprenticeship. Their role was to partner with teacher action research teams, assist in data collection and analysis, and work with the broader research team that included university faculty. Doctoral students needed to navigate the ambiguity of the project and their role, but the multi-level collaborations helped them create a space "wherein new knowledge and discourses were being constructed around their relationship with research and within PreK-12 education" (Arhar et al., 2013, p. 229). Amrein-Beardsley et al. (2012) echo the use of collaborations that bring together researchers at multiple levels in their use of "communities of practice" within their EdD program. These experiences help to expand the view that action research exists primarily in classrooms. While students report a mixed impact of their action research coursework on organizational or policy change, they do report a high impact on a change in practice for themselves and those around them (Pilkington, 2009). The case study below highlights an innovative use of action research coursework in a doctoral program and the effect it had on multiple levels of learners (Christenson et al., 2002).

3.4.2 Action Research as a Dissertation Methodology

A review of the literature regarding the use of action research in graduate teacher education programs found a significant increase in the use of action research as a methodology to complete both EdD and PhD dissertation requirements (Vaughan & Burnaford, 2015). The increase in action research dissertations since 2000 has been substantial. It is important to note that no difference was found in the number of action research dissertations completed within EdD programs and PhD programs, which contradicts some of the discussion in the literature

Case Study: The Ohio State University
Christenson et al.'s article titled "The rocky road of teachers becoming action researchers" explores a unique co-teaching experience where eight doctoral students paired with a university professor to co-teach and study an action research course taught to Masters of Education students. The collaborative action research project conducted by the professor and doctoral students aimed to examine how the teachers enrolled in the course changed as researchers and teachers, as well as how their self-study as course instructors impacted their teaching. The doctoral students and professor used their action research study to model and demonstrate the characteristics of action research. Through small group collaboration called Books Clubs, teachers worked together to develop their research proposals, sharing drafts of research questions and data collection. Analyzing surveys, journals, field notes, and video/audio tapes of class discussion, doctoral students found that the teachers in their course saw "dramatic changes in their understandings of research as they learned of alternatives to traditional research paradigms" (Christenson et al., 2002, p. 268). Also, teachers noted that action research promotes reflection, growth, and ownership, and is a valuable method for understanding their own teaching and student learning. Teachers reported that hearing from the doctoral students about their own research was a powerful teaching tool and doctoral students not only conducted an action research study but were able to make course modifications in future semesters, immediately applying their findings and starting the next cycle of their action research project. This course model highlights how using multiple levels of students within a course can provide benefits far beyond using a single course expert. (Christenson et al., 2002)

about action research as being a more natural fit for an EdD program versus a PhD program (Grogan, Donaldson, & Simmons, 2007).

There has been a steady increase in action research dissertations over time – a growth factor of more than 3.5 – and while the numbers of dissertations using action research as a methodology are not overwhelming, the growth requires an examination of the benefits and challenges that accompany this methodology for doctoral candidates. Although action research might be a viable choice for dissertations, there is still resistance in many areas. Students may struggle to find doctoral-level courses in action research and the "mismatch" between institutional review and action research procedures continues to present challenges for doctoral students going through the dissertation process (Herr & Anderson, 2015). Osterman, Furman, and Sernak (2014) revealed that action research was infrequently used to meet dissertation requirements in the educational leadership programs they surveyed, although the inherent goals for participation, collaboration, and social justice as benchmarks of action research make the approach compelling for school leaders. They further noted that only 52% of doctoral chairs at institutions offering EdD programs in educational leadership or

administration had ever chaired an action research dissertation. The challenge of locating a dissertation advisor who is well versed in the methodology also presents a challenge for doctoral students wishing to complete an action research dissertation (Klocker, 2012). Students may also grapple with the tension between the roles of practitioner and researcher, having to account for that in their research design (Pilkington, 2009). Historically, some have argued that action research as a methodology for a dissertation may not be academically rigorous. However, action research often requires grappling with complex relationships within research and accounting for bias within the participants, demanding a deep understanding of the methodology and more careful application of research methods, thus adding to the argument that it may be a more rigorous choice as a methodology (Zuber-Skerritt & Fletcher, 2007).

There are numerous benefits to completing an action research dissertation. Graduates who complete action research dissertations consistently report changes both personally and professionally (Amrein-Beardsley et al., 2012). The results of their dissertation research may also have a more immediate impact than a traditional dissertation on creating change in an educational space, due to the nature and context of their study. An analysis of the action research dissertations completed in one EdD program revealed that students "acted to increase the achievement and engagement of their students, foster equity and social justice, and improve teacher quality" (Amrein-Beardsley et al., 2012, p. 111). A significant benefit of the use of action research as a dissertation methodology is exposure to some of the core beliefs of action research as it relates to social justice issues. The purpose of action research is fundamentally linked to addressing problems of practice, whether in the classroom, local community, or global context. Action research "relies on research processes that tend to be collaborative and inclusive, strategies that have the potential to shift power relationships and facilitate joint efforts that cross lines of organizational hierarchy" (Osterman, Furman, & Sernak, 2014, p. 101). There is still work to be done supporting doctoral students who wish to complete an action research methodology, and with support from the literature highlighting an increase in the use of the methodology, programs across the world should continue their discussion of the role of action research within their doctoral programs.

3.5   Future Directions for Research

Twenty years ago, Clemson-Ingram and Fessler (1997) discussed the need for teacher leadership and the role action research could play in building leadership capacity within teachers that also supports school improvement and student learning. In an era where the language of school is often spoken in terms of data, arming teachers with the skills and processes to collect their own data, defend their instructional decisions, and evaluate new programs is essential to ensuring they have a voice in decision-making. Whether it is through professional development school partnerships or graduate programs, "schools, colleges, and departments of education must embrace the goal of empowering teachers with

the knowledge and skills necessary to lead and champion school improvements that enhance the education of all children" (p. 104). The push for more research that is conducted by teachers and with teachers is more alive than ever today. Stringer (2015) makes a case for the use of action research as a method for achieving equity in education and providing "effective programs of learning that are meaningful, relevant, and purposeful of the people they serve" (p. 372). In much of the literature reviewed for this chapter, action research often played an advocacy role. Whether it facilitated teachers resisting change or gave them support to create change, it was clear that becoming a researcher meant that teachers "were no longer willing to be passive members during staff meetings, but rather began articulating the insights discovered during their research" (Sax & Fisher, 2001, pp. 78–79). The core principles of action research support teachers in their push to create classrooms that meet the needs of their diverse learners simultaneously building their research and leadership capacity. Rogers et al. (2010) explains:

> The power of action research lies in its ability to require teachers to interact more often, and in new and qualitatively different ways, with their students. When students became important sources of data, the data-collection process created new possibilities for teachers to learn how to really listen and converse with their students about things important to them personally and educationally (p. 221).

Lastly, while the case for the use of action research as a means to create change in classrooms and communities has been made, the future direction depends on the ability to remove the traditional obstacles and arguments that stand in its way. Loughland and Bowen (2012) discuss how the dominant program of "evidence-based practice in relation to both the conduct of education in schools as well as in schools of teacher education" creates a context that "constitutes a fundamental challenge to a phronetic model of teacher education to an extent that it may be futile to pursue methods such as action research in the current climate" (p. 357). Action researchers in schools, communities, and universities need to continue to publicly share their work and highlight the insider knowledge that is so critical in understanding the context of education today.

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4

US Perspectives on Action Research in Education

Andrea C. Burrows

4.1   Introduction

> Diderot said, "What is a monster? A being whose survival is incompatible with the existing order."
> So, as an action researcher, I feel like something of a monster.
> And after talking [to others], I realize that they're monsters as well, and I'm assuming that many of you are monsters too.
> So, the question then before us is the following, "What's a monster to do?"
> *(Brydon-Miller, 2015)*

The social psychologist Lewin (2000) is often considered the father of action research (AR), and he is credited with saying, "If you want to truly understand something, try to change it." In the United States, the education community is constantly changing. Since definitions, explanations, and numerous AR examples abound for educators to use (Coghlan & Brydon-Miller, 2014; Dick, 2015; Greenwood, 2015), one would think that we, as researchers, would understand and recognize what makes US education tick – that is, the structure and function of the US education system. However, the education community – students, parents, teachers, researchers, and other community members – has more to learn. We only know what we know, which usually does not include all of the information needed to make timely, intelligent, and informed decisions. Consequently, it is important to consider the various US perspectives of AR in education, but also important questions such as how do we move forward, why do we choose the methods that we do, and where do we go from here?

Utilizing AR can assist in answering questions of what, how, why, and where. After a period in the early twentieth century when "rigorous scientific studies" were demanded, AR made a comeback (Hendricks, 2009, p. 7). The seminal work, *Action Research to Improve School Practices* (Corey, 1953), assisted in this

effort as AR became diffused throughout other fields such as curriculum theory (Schubert & Lopez-Schubert, 1997). Action research, which is the primary form of empowering teacher research, has often been regarded highly in the research realm, sometimes more so than it's pure qualitative or quantitative neighbors (Carr & Kemmis, 2004; Lewin, 1946; Stringer, 2014; Susman & Evered, 1978). This regard is fortunate, as teachers are the champions of students in the classroom. In order for them to advocate for their students, they must engage themselves in reflection, along with the whole educational community, on the roots of AR – including democratic participation, community empowerment, and social justice. Researchers can contribute to the empowering of the educational community and have been encouraged to do so for over a century.

In the prior century, Dewey presented "a vision of the teacher continuously pursuing self-education in the course of the act of teaching" (Schubert & Lopez-Schubert, 1997, p. 211). He also identified five stages of the inquiry process, which are familiar to AR practitioners and include: (i) the experience of an indeterminate situation; (ii) the conversion of the indeterminate situation (from dilemma to an articulated problem); (iii) the establishment of hypotheses coupled with anticipated action consequences; (iv) the elaboration and testing of the hypotheses; and (v) the reestablishment of a determinate situation (p. 212).

The General Education Board (GEB) was supporting forms of AR during this same time frame. Over the next 24 years, the GEB funded many schools focused on producing inservice teacher educational research. Teachers at some locations, such as the Lincoln School in New York (in collaboration with Columbia University's Teacher College), generated hundreds of studies and textbooks focused both on curriculum and on pedagogy. As described by Perillo (2016), while teaching is "a profession where members are expected to be consumers rather than creators of knowledge," teachers who engage in AR are empowered to challenge "many of the most foundational premises that have guided schools and the production of education research alike" (p. 90). Hence, teachers are not only "practitioners rather than 'experts'" (Perillo, 2016, p. 90), but are also the authorities leading the educational community.

By the 1970s, Stenhouse (1975, 1983) started the teacher-as-researcher movement in England, arguing that educational research must be testable by teachers in order to be utilized in the field. His notion gained traction internationally, spreading quickly into the United States. As the movement grew, it became influenced by researchers becoming reflective practitioners. This was the evolution into participatory action research (PAR). Since that time, as all forms of qualitative research have gained traction, so has AR. On the surface, AR is defined as a "participatory democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory world view" (Reason & Bradbury, 2001, p. 1). Mertler (2013) stated that educational AR must connect theory to practice, improve educational practice, foster broad school improvement, empower educators plus engage them intellectually, and cultivate professional growth. These five engagements must be conducted in collaboration with others (Clauset, Lick, & Murphy, 2008). Accordingly, the teachers' voices are at the center of the research effort. Furthermore, PAR is associated with transformative pedagogical projects, and it is the natural research extension

to teacher reflection and change. Cammarota and Fine (2008) explained PAR by stating that it focuses on

> the acquisition of knowledge on injustice as well as skills for speaking back and organizing for change. … PAR follows and extends principles of validity and reliability by challenging, for instance, where "expert validity" and "construct validity" live – in conversations with those who experience oppression, not simply those who decide to study social issues. (p. 5)

Thus, PAR is an integral piece of AR, which lends its change power to teachers and students who engage in the process. However, as Elliott (2015) explained, AR educational researchers realize that curriculum aspirations are often not met, because values and principles are left implicit and, thus, cannot inform the reform efforts. Teachers (although champions of processes such as collaborative learning), often cannot translate aspects of the learning processes into educational outcomes. Additionally, the urgency for these processes, due to outcome-based learning assessments, is often lost. Action research projects have the potential to both elucidate the implicit principle problem and support teachers juggling processes and student products. Elliott provided examples of curriculum design that emphasizes pedagogical values and illuminates implicit educational aims, as well as some resulting AR projects that led to transformed teaching.

4.2 PK-12 Teacher Action Research

As educational researchers, we understand that the AR process is an ebb and flow of engagement (Burrows, Thomas, Woods, Suess, & Dole, 2012), but where is this teacher AR happening and where are students encouraged to engage in the AR process, as well?

In the United States, PK-12 education refers to elementary and secondary education for students aged 4–18. The typical core courses, including language arts, mathematics, science, social studies, along with electives are found throughout the PK-12 experience. In general, the educational community accepts that teachers can choose to engage in reflection – or not – as they teach. Fortunately, many examples of teachers engaging with reflective AR studies have been documented (Burrows, Lockwood, Belardo, & Janak, 2018; Burrows, Lockwood, Borowczak, Janak, & Barber, 2018; Kane & Chimwayange, 2014; Meyer & Kroeger, 2005; Phillips & Carr, 2014). Looking to studies like these and others, according to McNiff (2016) three questions arise:

1) What constitutes knowledge of practice?
2) How is knowledge of practice acquired? and
3) How is knowledge of practice put to use?

In contemplating these questions, it is probable that the teacher-researchers' use of AR is the most efficient path forward.

As Stenhouse (1981) stated, "It is teachers who, in the end, will change the world of the school by understanding it" (p. 104). The term "teacher-researcher"

is an important one because it has redefined teacher roles (MacLean & Mohr, 1999). The George Mason University website (https://gse.gmu.edu/research/tr) explains that teachers are subjective insiders involved in classroom instruction as they go about their daily routines of instructing students, grading papers, taking attendance, evaluating their performance, and looking at the curriculum. Traditional educational researchers who develop questions and design studies around those areas while conducting research within the schools are considered objective outside observers of classroom interaction. When teachers become teacher-researchers, however, the traditional descriptions of both teachers and researchers change. Teacher-researchers should question what they think and observe about their teaching and their students' learning. They should collect student work to evaluate performance, but also view the student work as data to be analyzed in order to examine the teaching and learning that produced it (MacLean & Mohr, 1999; Mohr & MacLean, 1987).

Cochran-Smith and Lytle's (2009) assessment of the strength of AR rings true: "Despite all of the forces working against it, teacher research and the larger practitioner inquiry movement continue to flourish in the United States … Practitioner research initiatives are proliferating … and pushing back against constraining policies and mandated practices" (p. 6). In researching teacher AR, one begins to locate a blending of AR and PAR, as well as others (e.g. collaborative action research, or CAR). Although examples of teacher AR projects are abundant (Bleicher, 2013; Guerra, et al., 2015; Kane & Chimwayange, 2014; Mertler, 2017; Phillips & Carr, 2014; Rock, Polly, & Handler, 2016), a call for melding of these terms into one recognizable area specifically focusing on teachers engaged in AR is needed (such as sustainable teacher action research, or STAR). Some teacher-centered AR projects are described in the following sections to highlight teacher work and the need for a unifying descriptor.

4.2.1 Highland Park High School Action Research Laboratory in Illinois and Michigan State University

In September 2017, US School District 113 in Illinois approved a three-year strategic plan to guide decision-making. As a part of the plan, community input was crucial. Highland Park is an example of a professional development project that supports high school teachers conducting collaborative AR. This high school showcases teacher research (Senese, 2017). The teachers in the state are encouraged to undertake research, write their results for others, and disseminate their work to a larger audience. Fletcher (2007) explained,

> Teacher Research has begun to enjoy increasing recognition internationally as a form of professional development by teachers and for teachers. It differs from other more traditional forms of education research because it is undertaken by practitioners as part of their daily work rather than as a "bolt on" extra. Teachers sometimes feel that they have little ownership of what is taught in their lessons. The school curriculum is specified for them and they are transmitters rather than initiators of new knowledge.

Fletcher (2007) continued by explaining that teaching should be regarded as a highly creative activity, and teaching is ultimately about the practicalities of researching. The teacher-researcher outlines the "how to" as well as the "who can help me?" and "who can fund me?" questions. He notes that what motivates the teacher is also important and can lead to a teaching improvement for a particular class or project. Teacher-researchers should focus on the study or project specifics, and as the teacher-researcher gains experience, then the scope of the study or project can broaden. Suggested beginning study questions circle around teaching dynamics, satisfaction, and the problem at hand. The challenge is real for teachers to identify a focus that both informs and improves teaching and learning in the classroom. He finishes by describing the small, local inquires that inform educational knowledge rather than large-scale projects often led by university researchers. At times, work examples are critical to understanding the work itself. The AR teacher-led research projects found on the Teacher Research website (Fletcher, 2007; http://www.teacherresearch.net/r_webreview5.htm) from Highland Park High School include the following:

1) "De-emphasizing Grades in High School English, Health, and History Classes" by Fagel, Gorleski, and Swanson;
2) "Effects of De-emphasizing Grades: A Closer Examination of an Action Research Laboratory Project in a Health Classroom" by Gorleski; and
3) "The Effects of Being a Student in a Constructivist Classroom" by Senese.

Mentors for the research work come from Michigan State University and other places, as community members can register to help with projects as well.

4.2.2   Madison Metropolitan School District in Wisconsin and the University of Wisconsin, Madison

Another shining example of PK-12 teacher AR is found in Wisconsin. For approximately 30 years, the Madison Metropolitan School District (MMSD) has operated an AR program. They even have a department that focuses on AR for their teachers, offering grants and other opportunities. For example, some MMSD teachers assisted in authoring a book on *Creating Equitable Classrooms Through Action Research* (Caro-Bruce, Flessner, Klehr, & Zeichner, 2007). Focusing on the MMSD's CAR program, the book highlights the work of teachers who researched equity-based projects in their classrooms and schools. The book showcases studies ranging in topics from exploring why high school students drop out of school to the detracking of biology classes. In other studies, effective teaching methods for English language learners (ELL) and examples of culturally relevant pedagogy are explored. The book provides authentic accounts of teachers passionately engaged in narrowing the achievement gap and addressing issues of diversity and equity.

On the MMSD website (https://pd.madison.k12.wi.us/car), the school asserts that AR is a "terrific way for a teacher to engage in self-directed and collaborative professional development. It is a facilitated process in which participants examine their own teaching practice systematically and carefully using the techniques of teacher research." Diving further into the website reveals classroom AR guidelines that includes a matrix of topics to explore, such as guidelines for developing a

question, a process for analyzing data, role of participants in a group, and much more. Importantly, under "abstracts and papers," a searchable (by grade level, year, and topic) classroom AR projects database is at the reader's fingertips.

4.2.3 Moravian College Action Research

Moravian College belongs to the European-based Collaborative Action Research Network (also known as CARN) and partners with universities around the world. They are known as a leader in teacher AR. The finest record of the Moravian College work remains the complete and ongoing repository of teacher AR studies found on their website (https://www.moravian.edu/education/research/med-thesis; Shosh, 2017). The teachers from Moravian College's AR work seek to build upon Somekh and Zeichner's (2009) call for educational reform through the remodeling of AR theories and practices in local contexts. The teachers who graduate from the program embrace collaboration and AR as they continue teaching (Shosh & McAteer, 2016; Shosh & Zales, 2007). Their work can be utilized as pure examples, springboards for projects, or prompts for discussion.

4.2.4 High Tech High Graduate School of Education

The High Tech High (HTH) Graduate School of Education (GSE) supports teachers, educational leaders, and school founders in focusing on equity, learning, and leadership (https://hthgse.edu). Anyone can visit HTH schools, where teachers and leaders can learn more about attending GSE events, developing as leaders, leading change in a current school, or creating a new school. An interested person can become a teacher with an immersive residency in an HTH school while earning a Master's in Education with preliminary teaching certification.

   As a visitor to San Diego's HTH school in 2010, I observed an evident shift from traditional US school culture. The atmosphere seemed relaxed, almost as if there were few rules for students to follow. Students seemed relaxed in hallways and classrooms and chatted while they worked. Yet, an ambiance of serious work was present, and engagement with the project at hand was evident. The ideas of creating, implementing, and disseminating their work were apparent in all aspects of the school. Student work was everywhere – in the middle of hallways, on the ceilings, on the walls, and in every classroom. When asked, the students gladly explained what they were doing and what they were learning. A Project/Problem-Based Learning (PBL) Design Kit as well as examples of the school's projects – under Share Your Learning – are accessible from the main webpage to spark imagination for other AR teachers.

4.2.5 Albany County Laboratory School in Wyoming and the University of Wyoming

The University of Wyoming (UW) Lab School is a public school of choice and has earned the Edutopia "schools that work" designation (https://www.edutopia.org/school/university-wyoming-lab-school). Located in UW's College of Education (CoEd) building in Laramie, the school is unique in that it strives to model

learner-centered education for approximately 270 K-8 grade students (aged 5–14 years). The Lab School partners with the UW teacher education program to serve as an educational learning site for hundreds of elementary and secondary UW CoEd students each year. The mission of the school promotes a positive learning community that recognizes, fosters, and assesses continuous improvement toward advanced academic and social achievement for all students, preservice teachers, faculty, and staff. One example of a recent environmental project can be found on the Wyoming Public Media site (http://wyomingpublicmedia.org/post/school-project-punches-out-polystyrene-cafeteria-and-community#stream/0).

The school's partnership with the CoEd and extensive utilization as a setting for field experiences has resulted in a culture where all teachers are viewed as leaders who support the preparation of future educators. The Lab School embraces active involvement in the school community for all members. This culture furthers teacher leadership roles through a shared commitment to innovative and reflective practice, collaboration, and ongoing professional development. Models, structures, and practices that enhance teacher leadership skills (and honor the teachers' work beyond the classroom) are developed, employed, and continue to evolve in response to students' developing needs.

At the UW Lab School, teacher leaders initiate and participate in professional development learning and experiences that lead to school and community improvement by increasing the learning opportunities for school and university faculty, preservice educators, and students. One example of these combined learning experiences is the interaction of middle school science students with preservice secondary science teachers (Future science teachers gain hands-on experience at UW, 2017), where the students engage with materials created by the future science teachers. Students leave with questions and curiosity, while future teachers leave with ideas for improving their learning centers. Lab School teacher leaders also play a significant role as change makers in the work of schools and in school improvement efforts. In addition to spontaneous, organic leadership efforts to enhance the school environment and student learning, teacher leaders take on semi-formal or formal leadership roles in professional development and in district, state, and national committees. These roles establish distributed leadership and a democratic environment while recognizing teacher expertise and the essential role of teachers as key players in educational reform.

4.3 Youth Participatory Action Research (YPAR) in Education

Designed to engage youth in social change processes, as they are often not sought as change agents, youth participatory action research (YPAR) connects practice and reflection. The youth usually partner with adult researchers and together they navigate the process. YPAR situates itself in youth experiences, knowledge, and views of social justice (Cammarota & Fine, 2008; Duncan-Andrade & Morrell, 2008; Kirshner, 2010; McIntyre, 2000; Rodriguez & Brown, 2009), instead of engaging youth only as participants. Examples of US YPAR projects

are numerous (Akom, Shah, Nakai, & Cruz, 2016; Caraballo, Lozenski, Lyiscott, & Morrell, 2017; Corces-Zimmerman, Utt, & Cabera, 2017; Grace & Langhout, 2014; Langhout, Collins, & Ellison, 2014; Mirra & Rogers, 2016; Mitra, Serriere, & Kirshner, 2014; Ozer, 2017; Rubin, El-Haj, Renda, Graham, & Clay, 2016; Scorza, Bertrand, Bautista, Morrell, & Matthews, 2017; Scott, Pyne, & Means, 2015). The overarching theme is that YPAR can lead to change in youth themselves and the structures (e.g. government or school) that surround them. An example of YPAR, where students are change agents, was recently witnessed as Florida high school students engaged the nation in discussion and debate over gun control laws (Bromwich, 2018). By viewing themselves as powerful voices, the students brought AR to life in this scenario. Conversely, this strong project beginning does not necessarily indicate that this movement is a true YPAR project that will advance practice and reflection. The following studies, explained with supplementary details, are especially poignant to this idea.

Buttimer (2017) succinctly summarized components of YPAR. Guiding principles include critical nature, student experiences, youth participation, inquiry-based learning, indigenous knowledge, action orientation, raising awareness, and authentic audiences. The practices of YPAR include relevant topic engagement, open-ended question identification, grounding in literature, research instrument development, data collection, data analysis, reporting, action planning, and authentic actions. With these principles and practices, his study showed that the students were engaged and motivated, developing identity, and improving knowledge and skills. These positive outcomes occurred with challenges such as power dynamics, curricular space, testing, time, deadlines, knowledge production, and adult-to-youth and peer-to-peer dynamics. As insiders, the participants in his study pointed to lack of research training, curricular resources, disciplinary training, adult to student ratios, nature of schooling, and rigor as challenges. However, his work shows that administrative support, along with community organization support, can bolster the YPAR agenda.

To make the emphasis clearer, Cammarota and Fine (2008) stated, "In short, YPAR is a formal resistance that leads to transformation – systemic and institutional change to promote social justice" (p. 2). They questioned whether this resistance can form in traditional structures, but argued that youth have the "capacity and agency to analyze their social context" (p. 4). Duncan-Andrade and Morrell (2008) embraced critical pedagogy YPAR work in urban contexts, as well as delving into utilizing and extending the core tenets of critical pedagogy. They posited that the politics of failure, or the general belief that some students must be unsuccessful in school, and the economics of failure, or the general belief that schools set the economic futures of their students, require teachers and students to disrupt restrictive structures and carefully navigate tensions.

> In the game of education, groups with high levels of social, political, and economic capital move around the same game board as the rest of the population, supposedly competing under the same set of rules, but they afford themselves a supplemental bankroll that guarantees an unfair competition, one that for centuries has produced the same unequal outcomes in schools and in the larger society. (p. 3)

Fox and Fine (2013) described a study where youth were an integral part – such as assisting in the project design – of evaluating the impact of policies on youth. The Polling for Justice project resulted in a focus on the knowledge production point and who is accountable for that knowledge. The youth participants felt empowered, a part of a group, and realized that they held the power to change policy. At the heart of AR work is highlighting the value of youth, and this often includes influencing plans for these same youth. When youth influence policy and practice for their own group and problem, then social justice, community empowerment, and democratic participation are evident.

Along these same lines encouraging youth to both react and be proactive in their situations, Kirshner and Pozzoboni (2011) examined student perspectives on what were deemed underperforming schools and their closings. Using YPAR, the students expressed that they wanted to be a part of the decision-making to close the school and that the school was seen as deficient instead of the relationships and belonging that it afforded the students being valued. Habitually, youth have opinions that are left out of school policy creation, hence the call for YPAR is critical as an important aspect to consider in school structures and policies.

Based on previous examples of youth claiming a valuable stake in projects and policy, and as this chapter focuses on US education, and as PK-12 schools are composed of students, it seems apparent that AR researchers should reach out to the youth in US schools when conducting evaluations, recommendations, reductions, and extensions for PK-12 education. Kornbluh, Ozer, Allen, and Kirshner (2015) utilized YPAR as a means of engaging students in learning, specifically around the *Common Core State Standards* (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) and *Next Generation Science Standards* (NGSS Lead States, 2013). They described YPAR as "a youth-centered version of community-based participatory research, sharing the emphasis on promoting the power and sociopolitical voice of marginalized groups via an iterative process of inquiry and action, while also democratizing research to include the expertise of those affected by it" (Kornbluh et al., 2015, p. 870). They outlined benefits of YPAR for both educators and youth, and showed that when participating in YPAR projects, students gain critical thinking, improve achievement, develop sociopolitically, enhance social networks, gain social capital, and promote their voice in decisions. Their website (http://yparhub.berkeley.edu) engages others with curricula and resources for guiding YPAR projects. However, they too (like Buttimer, 2017) point to challenges of embedded hierarchy, resistance to politically sensitive topics, time, resources, and YPAR structure and capacity building. They argued that YPAR offers benefits for the students and larger school environment.

Ozer and Wright (2012) pointed out that youth have limited opportunities to engage in research or influence secondary schools. They described the effects of two YPAR projects on the participants involved. Again, the benefits of YPAR are espoused. Their findings indicate that students showed signs of professionalism in interactions and expansion of influence, as well as that students engaged in the two schools were more diversified.

4.4 Community-Based Educational Action Research

Community-based educational AR requires immersion into the AR process for a multitude of stakeholders. Looking, thinking, and acting (Stringer, 2014) are vital to AR processes, as are kind, thoughtful, and intentional actions (Burrows, Lockwood, Belardo, et al., 2018). Anyone leading an AR community-based project should be vested in including the voices of all participant stakeholders as a fundamental aspect of the project. These projects can be large, like the following examples, but they can also be fledging projects or bounded endeavors (Burrows, Lockwood, Borowczak, et al., 2018; Meyer & Kroeger, 2005).

4.4.1 Morris Justice: A Public Science Project

As a PAR project, *Morris Justice: A Public Science Project* (http://morrisjustice. org/#/id/i9056772) conducts research based on the fundamental belief that "valid knowledge is produced only in collaboration and in action, and that those typically 'studied' should be architects of the process." It is comprised of south Bronx neighborhood residents, Public Science Project team members, the City University of New York Graduate Center, John Jay College, and Pace University Law Center. The group has spent years documenting experiences and policies in a 40-block community near Yankee Stadium. The project consists of research development focusing on topics of direct interest to the small New York City community (e.g. experiences with police), data collection (e.g. 1000 community members' door-to-door survey), data and community-based analysis, dissemination of key findings in a community-relevant and accessible fashion through a "back-pocket report," and finally, critical mapping to tell counter-stories to aggressive police practices.

4.4.2 Young People Empowered to Change the World

The YPAR approach to youth and community development is grounded in social justice principles, and it specifically targets the training of community youth to conduct research that impacts "their lives, their communities, and the institutions intended to serve them." Titled *Young People Empowered to Change the World* (http://yparhub.berkeley.edu), the website emphasizes redefining the expertise holders, providing skills for change agents, generating insights and resources for issues, promoting empowerment and tackling community issues, and evaluating programs, policies, and practices that affect the YPAR community. The website exclaims that, with YPAR, youth can redefine who has the expertise to produce knowledge of the world, provide skills in inquiry with evidence plus presentation, generate findings that provide insight into issues, find or use resources to help resolve those issues, promote sociopolitical development, enhance empowerment in understanding problems faced by them and communities, promote skills and increase motivation to take action, and evaluate programs, policies, and practices around them.

4.4.3 Enhancing College Access and Success through Participatory Action Research

Similar in nature to YPAR, the Minnesota Campus Compact project of *Enhancing College Access and Success through Participatory Action Research* website encourages youth from high schools, colleges, and universities, in addition to engaged community leaders, to conduct relatively focused PAR "projects related to educational environments, community engagement, and preparation for college, careers, and civic life" (http://mncampuscompact.org/what-we-do/initiatives/enhancing-college-access-and-success-through-participatory-action-research). Recently funded and exemplar YPAR projects include support for (i) non-traditional STEM (science, technology, engineering, and mathematics) students that could improve STEM field racial, ethnic, and class diversity; (ii) a community media initiative that allows youth to research issues important to them; (iii) Native American youth examination of school climate and educational disparities; (iv) undergraduate Latina/o youth connection to issues of latinidad (identity), ethnic (Raza) studies, heritage languages (e.g. Spanish), and communities of acompañamiento (backing each other); (v) underrepresented youth in health care; and (vi) school-to-school partnerships for non-traditional students to enhance college access and success which will result in recommendations with national implications.

As shown in all of these examples, YPAR clearly has a vast reach and a plethora of stakeholders. In the United States, the educational community would benefit from engaging these youth in all aspects of schooling. Sometimes there is a misconception that engaging youth means relinquishing power to the youth. However, those familiar with AR would be quick to note that a shared, newly created vision – and possibly workload – does not equate to loss of voice for the adult stakeholders, as every person – youth and adult – has a voice. Programs and changes made together have the potential to impact US education as grassroots efforts, where students would buy in to the programs and changes of continuous improvement instead of being viewed as lacking something that needs fixed. The nation has the tools and people to make YPAR a model for continuous educational improvement.

4.5 Action Research Centers and Networks

4.5.1 Action Research Network of the Americas

Formed in 2012 by five other entities, the Action Research Network of the Americas (ARNA) focuses on inclusiveness. When referring to ARNA researchers (who come from different venues such as public schools, private schools, community settings, and other workplace settings and often do not represent traditional researchers), the vision promotes

> meaningful cycles of observation, reflection, action, and public presentation … [with] *honesty* in sharing what we have learned with wider audiences; *integrity* in gathering and analyzing data; *inclusiveness* so that all

> may benefit from action research efforts; *multi-vocality* of diverse participants and their unique perspectives; *engagement* of learners, teachers, and researches in the process; *achievement* and/or enhanced professional role as defined and demonstrated by participants as well as by outside authorities; *sustainability* of limited and renewable human and material resources; and *democracy* as an imperfect but preferable choice to guide decision-making. (Shosh, Rowell, Riel, & Bruce, 2017, p. 491)

The ARNA website (http://arnawebsite.org) invites college students and faculty working in teaching and learning practitioner inquiry to join the ARNA community. They envision multiple layers of collaborative action, and encourage practitioner improvement of practice through numerous means.

4.5.2   American Educational Research Association (AERA) Action Research Special Interest Group

The American Educational Research Association (AERA) contains multiple special interest groups (SIGs), and one of those groups is the AR SIG. On the website (https://sites.google.com/site/aeraarsig) the group states that AR "seeks transformative change through the simultaneous process of taking action and doing research," and then further explains that the nature of AR "places the researcher in the middle of the inquiry and not on the outside as an observer and/or experimenter" (https://sites.google.com/site/aeraarsig/Home/what-is-action-research). The group welcomes and invites participants to "build and share in our action research world!"

There are times when struggles are more instructive than successes. The AERA AR SIG requested news items to share with the community, and this request was met with a dearth of submissions. The AR community is certainly engaged with projects that value stakeholders and improve community and justice issues. The message here for those working in AR groups is to share experiences broadly and in as many venues as possible. The AR educational community realizes that strength is found in working together; therefore, as AR participants, we will all benefit by expanding stakeholder groups and sharing efforts and findings through any available avenue. Disseminating work so that a non-academic audience could find it, join in, or understand it is essential.

4.5.3   Center for Collaborative Action Research at Pepperdine University

The Center for Collaborative Action Research supports AR in schools, community settings, and online learning environments. The website (http://cadres.pepperdine.edu/ccar/define.html) showcases collaborative AR projects and supports the community of action researchers. They address the issue of sharing work through a figure that emphasizes sharing projects with critical friends, local participants, and other action researchers. Transforming thinking, acting, and feeling can only happen through actions and enacting changes. They offer an illustration to outline cycles in the iterative AR process, an understanding of AR itself, definitions, paths to expertise, AR goals, a learning circles explanation, and

assistance with developing strong AR research questions, sharing AR projects, and publishing a web portfolio. An illustration also describes the connections between innovative expertise (invention), AR as a novice's path to adaptive expertise (understanding), and efficiency expertise (automaticity), which could give an AR group a reference measure (Riel, 2010–2017).

4.5.4 Highlander Research and Education Center

Promoting justice, equality, and sustainability in the US Appalachian region and the South, the Highlander Research and Education Center (HREC; http:// highlandercenter.org) supports participants' collaborative action to shape the future. Creating spaces for participant interaction and communication are a focus of this group. Leadership is also key, where participants develop skills to engage with movements for social, economic, and restorative environmental change. The HREC utilizes methodologies of popular education (combining experiences and knowledge for collative analysis), language justice (creating multilingual spaces and culture), PAR (recognizing information as power and encouraging investigation, empowerment, and action), cultural work (placing art and culture of organization to inspire action), and intergenerational organizing (inviting everyone to participate to learn from the past, engage in the present, and dream of the future). Programs currently on the list include emerging leader engagement, justice summer camp for children (aged 6–12 years), policy and decision-making collective for children (aged 13–17 years), building community partnerships to end discrimination and exploitation, and urban and rural connections through participatory community-based processes.

4.5.5 National Writing Project

The National Writing Project's (NWP) website (www.nwp.org) offers knowledge, expertise, and leadership of US educators for sustained efforts to improve writing and learning for all. The NWP points to writing as the "signature means of communication" and highlights a network of roughly 200 sites from all 50 states, Washington, DC, Puerto Rico, and US Virgin Islands that serve teachers of different disciplines at all levels K-16 (kindergarten through college). Yearly, the NWP provides over 100 000 K-16 educators with professional development and leadership opportunities. As a cornerstone to equity, the NWP focuses on high-quality educational experiences and diversity. The website "recognize[s] that practice is strengthened when we incorporate multiple ways of knowing that are informed by culture and experience." The NWP model offers developing leadership for local teachers, delivery of customized inservice programs, and provision of continuing education and research opportunities.

4.5.6 Participatory Action Research at MIT

A website (https://actionresearch.mit.edu) for the Massachusetts Institute of Technology's (MIT) Lawrence Susskind promotes PAR by declaring that it is "time for social scientists to stop pretending to be natural scientists and to acknowledge

why applied social science research should be something else altogether." The site includes an explanation of natural scientists calculating generalizations and social scientists knowing specific situations and understanding in more detail why things happen. He concludes, along with others, that social science is in a position to tackle serious societal issues (Flyvbjerg, 2001; Flyvbjerg, Landman, & Schram, 2012). The MIT PAR group builds a community of scholars and focuses on teaching PAR methods to graduate students and research partners and offers six considerations of PAR pedagogy: ethics, multiple modes of community interactions, ways of involving communities, best means of preparing case studies, collaborative data analysis, and balancing competing professional needs and interests of outsiders (Susskind, Cunningham, & Cruxen, 2018).

4.5.7   University of Cincinnati Action Research Center

The University of Cincinnati (UC) Action Research Center (ARC) actively seeks scholars and activists. The ARC highlights partnerships in reflective practices and engaging communities for positive social change. On their website, Brydon-Miller's (2015) video *Then Let Us All Be Monsters: Tackling Tough Issues Through Action Research* explains that through enacting change people come to understand the system and realize that we are often at odds with the existing order. Thus, UC's ARC embraces the "ugly" and messy parts that often accompany AR. A part of the ARC is the Student Organization for Action Research (SOAR), which provides students with opportunities for true community engagement. Working with and listening to the stories of community members is a backbone of ARC, and examples ranging from a nature center to a school to an urban studio to a visiting nurse association are exemplars of ARC work (University of Cincinnati, 2010, and http://cech.uc.edu/centers/arc.html).

4.6   A Resource for AR Conflict Management

When utilizing AR with K-12 groups, YPAR groups, community-based education AR groups, or AR centers and networks, conflict is bound to arise as important problems are brought to light. Action researchers would do well to apply tools for identifying and managing conflict before, during, and after the actual conflict surfaces. When facilitating group understanding of common issues, embracing proven conflict management strategies could solidify or dissolve group members' good intentions.

Rothman (2014) encouraged teaching students (of all ages) to become reflexively self-aware. This concept is applicable to teachers, facilitators, leaders, and others working in and with schools. He suggested journaling and conflict engagement to assist in the process. Not only is critical thinking enhanced, but students can find a deeper understanding of themselves and others. Burrows and Harkness (2016) described a class that utilized action evaluation and reflexivity and the benefits and challenges that they created. This process included voice, purpose, and view, and can be observed through analytical, reflective, and reflexive styles. In Rothman's (2014) work, voice, purpose, and view alter from third person – summarizing and

comparative (analytical) – to second person – encountering and making meaning (reflective) – to first person – contextual and unfolding (reflexive). These models may reveal themselves in AR situations in the following ways. Imagine a few teachers writing a department report on what the group needs in their classrooms and why. They are writing about themselves, while summarizing information and comparing what they have to what they need. This is an analytical style. Now, imagine a few teachers in a department meeting discussing what they need in their classrooms. They are encountering the same material and making meaning of the situation of the group while responding to peers ("You said…"). This is a reflective style. Lastly, imagine a few teachers talking in a small group in the hallway. They are speaking in first person ("I") and putting their needs into their unfolding dialogue. This is a reflexive style.

For an action researcher, identifying the type of style being used can be important, but understanding what to do with the information is even more important. Using a model of conflict management is vital. Rothman worked with Burrows and Harkness and as a group they created the conflict iceberg model (Burrows & Harkness, 2016) that included three main types of conflict: resource, objective, and identity. Resource is the easiest type of conflict to solve, whereas objective conflicts are more difficult, and identity conflicts are the most difficult to tackle. Four main strategies can be used to confront the conflict types, including action, invention, resonance, and antagonism. All of the strategies end in action. Thus, if there is a resource conflict (e.g. no paper), then an invention, or finding a solution, is needed. For example, the group could use discarded paper for writing or printing. If in the case of an objective or goal conflict (e.g. one teacher desires more technology in the classroom, while another requests instruction on how to use the technology currently in the classroom), then resonance, or the power of why it matters, is needed. Thus, the teachers would talk through what they need and why it is important to them. Eventually, with guidance they should see that technology is the central crux of the objectives. The intent is different, yet both views are important and valid. The teachers will have worked through both resonance and invention to solve the problem. Perhaps a technologist comes to explain some technology uses to one teacher, while the other can visit the discarded technology items of other teachers. Last, if there is an identity conflict (e.g. one teacher feels as if no one respects his/her college degree), then the teacher must begin with antagonism. This is not an easy step. All parties must be open to listening, without interrupting, while the other parties explain why they feel the way that they do. When all the antagonistic feelings are out in the open for others to interpret, only then can the teacher move to resonance (finding a place of meaning with others) and then invention (what can be done about this problem). The action in this case might be only to agree, after the discussions, that the college degrees of all involved matter and hold value.

Clearly, this is a simplistic view of conflict negotiations, and the previous example only focuses on two teachers with different needs. However, it is a starting place when something goes wrong within AR work. Additionally, there are other useful examples of approaching stakeholders as mentors and conflict negotiators when troubles arise (Bradbury-Huang, 2010; Morton, 2005; Schwortz, Burrows, & Guffey, 2017). The AR community deals with resources, objectives, and identities
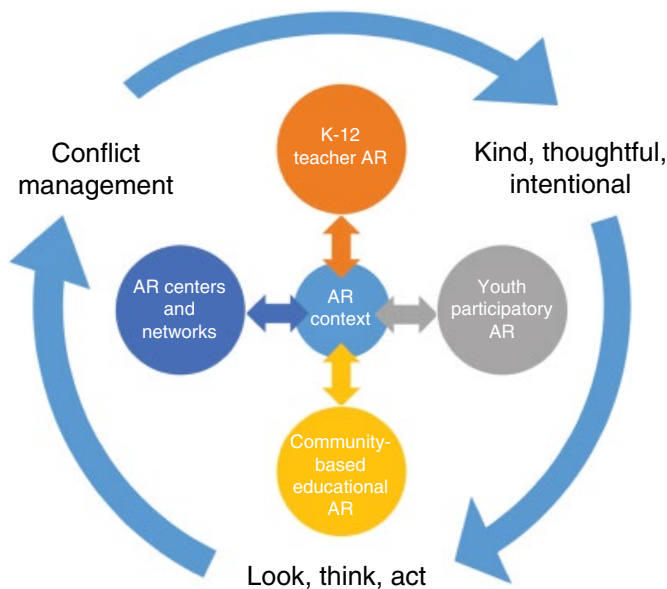
Figure 4.1 The relationship between action research components, strategies, and values.

through layers of emotions and hard evidence, all in the same space. Basic mentoring, conflict management, and reflexivity can aid the community in moving forward together. Figure 4.1 depicts the importance of conflict management, as an overarching value structure, to the AR process.

4.7 Conclusions and Future Directions

If we are indeed, as Brydon-Miller (2015) stated, metaphorical monsters, since as an AR community we are unable to peacefully co-exist with society's current structure (based on the lack of voice and stakeholder involvement in many societal and educational aspects), then what should a monster do? The answer – do what any good monster would – be aggressive and push back on the status quo. Continue to search for truths as they are held by each community, stakeholder, and situation. Reach for inclusivity while the educational community looks, thinks, and acts, as Stringer (2014) suggested. At the same time, strive for kind, thoughtful, and intentional interactions as offered by Burrows, Lockwood, Belardo, et al. (2018). Then, the educational community, with these parameters in mind, can envision a more comprehensive K-12 teacher, youth participation, community-based programs, and centers and networks of AR coupled with conflict negotiation.

The good news is that copious AR projects and works are currently being produced in the United States. Many of those AR projects and works relate directly to the educational community, and members from different types of places and unique vantage points are encouraged to join in the movements to change our

US schools with experience, teamwork, reflection, practice, and dedicated research attention. Teacher AR, youth participatory AR, community-based educational AR, and AR centers and networks are established and growing. As a research methodology, whether it sits within qualitative research or stands on its own merit, AR is powerful for – and empowering to – participants, communities, and change.

The common threads in K-12 teacher AR, YPAR, community-based AR, and centers plus networks include grassroots efforts to solve problems while involving as many stakeholders as possible and tackling difficult issues. AR researchers, whether squarely in the classroom (e.g. teachers), based in the community (e.g. Young People Empowered to Change the World), or working with a like-minded group (e.g. ARNA), are not afraid to ask demanding questions and then explore the answers, even if it means engaging in an arduous process. All of the AR researchers in these realms are not merely searching for a single solution to a single problem, but are researching how interactions and why certain approaches lead to improved outcomes, specifically as they relate to an individual context. All types of AR researchers must navigate these sometimes-contemptuous waters (as issues close to home are fueled with passion) with the ability to identify conflict types and strategies to employ when conflicts arise. The "why" – in relation to why these AR education projects work – revolves around the diligence, inclusiveness, and open-mindedness of those involved. The "how" – in relation to how these AR education projects have led to continued success – revolves around the same metrics of diligence of the stakeholders, inclusiveness of the project and process, and open-mindedness of listening to and trying new ideas. These shared areas of strength are where all aspects of the US AR educational community agree and aggressively pursue a more efficient structure and function for US schools and school-like places.

The flipside of the many AR educational community successes is that challenges persist. A smaller issue is that of unifying, clear descriptors. Viewing AR, PAR, and YPAR is helpful in identifying groups, but teacher AR is left nondescript, and I argue that STAR would be a helpful acronym. There are still larger tasks to accomplish and an unfulfilled need for increasing the number and type of stakeholders involved in educational AR – in and connected to the educational community – in order to fulfill the required changes that the education structure desperately requires. Data collection is needed to identify the means to move AR forward in these different venues. Fundamental to AR's value core and actions, there is an urgent need for collaboration and incorporating AR in educational creation, implementation, and assessing tasks. The AR community must continue prodding the authority to include stakeholder voices and ideas. Necessary and fundamental endeavors involve shedding light on contributing factors leading to PK-12 teacher, YPAR, and community-based accomplishments (even when these are counter to policy), increasing AR participation among stakeholders (even when gaining trust is difficult), airing grievances of the educational community (even when these are difficult to hear), and moving toward ameliorating some of those grievances (even if the process or product seems unfair). The community of AR researchers needs frequent reminders to watch for and identify conflict types and strategies to employ when conflicts occur, which could ease the transition to

meaningful change. Pursuing these tasks will enable and encourage the AR educational community's growth and forward momentum. AR has always been a venue to begin these educational community undertakings, but these efforts must continue and all within the educational community must strive to one day embrace the current US educational system. The system may become elegant and effective with a greater number of and more diversified stakeholders. One day, action researchers should be able to look back on the early twenty-first century and see that the US educational system changed for the better with voluminous stakeholder input, and then none of us will appear as a monster today or tomorrow.

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5

Worldwide Perspectives on Action Research in Education

Ernest (Ernie) Stringer, Bob Dick, and Jack Whitehead

Globalization: The process of making links between the local, social, and global.

5.1   Introduction: Globalization and Action Research

The current era may be characterized as one in which disparities between the rich and poor continue to increase, despite the continued attempts to "close the gap" through remedial actions instituted by government programs and interventions. In education, as in other spheres of social life, the gap between the educational attainment of those from upper and lower socio-economic groups continues, despite significant levels of funding directed to special programs and services over an extended period.

Reviews by Sarason (1990) and Cole (2010) reveal that lack of significant progress in lessening this gap over a 40-year period can be attributed to the inability of educational systems to think past established practices of organization, curriculum, and pedagogy. This echoes Foucault's (1972) analysis of institutional life in which he attributes lack of progress on this issue to the ability of a professional and organizational elite to control the systems of knowledge – or discourses – framing and maintaining ordinary, commonly accepted practices and procedures. Oppressive systems of domination and control, Foucault suggests, are maintained not by autocratic action, though this sometimes appears true, but by the unconsciously accepted, routine practices that people use in their professional and occupational lives. These mechanisms are magnified in the current era, where educational life is often framed according to the narratives of corporate life and market forces, and scientific knowledge is demonized or disregarded by politicians and the media (Denzin & Giardina, 2018).

In the contemporary world, technology creates instant access to information and communication, and social life is increasingly impacted by global economic forces. Within the university, as in other educational environments, teaching and research are progressively dominated by centralized compliance and accountability processes, generating mechanized and "technocized" procedures that threaten the very lifeblood of the university – the academic freedom to produce knowledge that directly speaks to the needs of the people. Denzin and Giardini (2018) suggest the need to "… be more forceful in producing research that not only matters in the abstract, ephemeral sense of *wanting* to contribute to social justice and social change, but matters in concrete and productive ways for a refashioned [research] to take effect" (p. 2).

This chapter seeks to present interpretations of ways that action research can provide the means for such an enterprise. Ernie Stringer uses a developmental framework to describe how levels of participatory action research from the personal to the global were used as the basis for instituting the development of a national educational policy in East Timor. Bob Dick provides insight into the growth of action research within a wide range of international contexts, in the process revealing how educational action research has influenced the continual development of the field. Jack Whitehead extends our understanding of the ways in which a focus on lived experience enriches processes of inquiry, demystifying the disembodied politics often involved and empowering participants to contribute to the global flourishing of humanity.

5.2 Action Research as Developmental Process (Ernie Stringer)

A well-founded local action research process holds within it the potential to be more effective and sustainable by making links with the organizational structures of wider social and global institutions. Action research may therefore be seen as a developmental process that can spiral out from a single locality to develop relationships with broader social groups or institutions providing the possibility of taking action at regional, national, or international levels. The processes of development inherent in these movements, therefore, often require practitioners and workers to engage in sustained work over time and to develop the skills to take action at these levels.

Quick fix programs – so common in today's world – often fail to provide the continuing processes of change and development required to deal effectively with issues deeply embedded in the fabric of organization and social life. Kelly and Westoby (2018) present development in terms of spheres of activity, each nested within the other, providing the means to sustain the principles involved in participatory work and the carefully articulated practices that attain the desired outcomes of the process. Their formulation suggests the following basic framework of actions:

- *Implicate* method for positioning self within the context;
- *Micro* method for building relationships between people;

- *Mezzo* method for strengthening group activities;
- *Macro* method for establishing effective organizations;
- *Meta* method for making local, social, and global linkages.

The implication of this practice framework is that developmental work is not just an organizational matter but also requires participants to acquire the skills and knowledge enabling them to maintain the principles inherent in participatory processes.

Inherent in participatory action research, therefore, is the need to engage in thoughtful, reflective, and systematic processes of investigation and action. The many and varied frameworks of the family of processes that fit within the compass of what we term "action research" largely focus on reiterative cycles of reflection and action that:

- identify a *focus for inquiry* (i.e. defining a problem or issue to be investigated);
- identify *stakeholding groups* related to the problem or issue;
- *gather information* from each of those stakeholding groups;
- *reflect on or analyze* that information to determine key concepts and perspectives;
- *plan* steps (actions) to be taken.

My own experience has involved learning the many and varied understandings and routines required to facilitate these processes. The following example, though not an adequate representation of the above frameworks, still provides something of the flavor of the practices involved in working from the personal to the global. Much detail is missing from this account, but it is true, as far as I found possible, to both the principles and the movement of participatory practice. It does not include the struggles, mistakes, and personal hurt involved in the often-demanding world of social and political engagement, nor the joy and sense of accomplishment revealed in the delight of participants in a successful project. Generally, however, I look back at my history of experience in the field with a sense of satisfaction – not at what I have accomplished personally, but at the feeling that I have participated in something particularly worthwhile.

In the earlier part of this century, I was asked to work in East Timor at a time when the nation had gained independence from the colonial rule of Indonesia. Being particularly busy at the time with a demanding publishing schedule, I initially refused the request, but was brought up sharply by one of my sons who was stationed in that emerging nation. "Dad!" he exclaimed in exasperation. "They're trying to build a new nation. They need people like you!!"

Caught in a net of my own making, I phoned the United Nations Children's Fund (UNICEF) office in East Timor and accepted the task offered, a six-week project to identify ways of engaging local communities in the rebuilding of their local schools. This had become necessary due to the rather brutal actions of the departing Indonesian military that had destroyed many of the schools, and the departure of Indonesian nationals who comprised a large proportion of teaching and administrative staff.

A small team comprised of me and two to three local people engaged in a series of exploratory workshops in a small, diverse sample of schools across the nation under the auspice of UNICEF and the national education authority – the Ministry

of Education, Youth Affairs, and Sports (MEYAS). This was supervised by a national committee derived from the education authorities, UNICEF, the Catholic Church, the World Bank, and other key stakeholding entities. In the process, I was careful to engage in regular consultation and feedback sessions with senior administrators within UNICEF, the Ministry, and other members of the supervising committee.

Workshops in each of the sample schools were engaged in as participatory action research with parents, principals, teachers, and community leaders exploring basic questions related to the development of their school:

- What do we want for the education of the children in the community?
- What should the government provide?
- What can we do to assist?

The school plans resulting from these workshops provided the material from which a Policy Proposal Report was presented to the Ministry. The report provided a rich body of information, particularly about the role that parents and community leaders could play in rebuilding local schools. A report had been approved by the supervising committee and enthusiastically endorsed by the Ministry, with the Director General speaking in glowing terms of the positive feedback he had received from schools involved in this initial process.

As a result, I was asked to facilitate the implementation of the plan and made regular extended visits to East Timor over the next two years, returning to assist in the development of local, regional, and national plans for the reconstruction of local schools across the nation.

Initial implementation of the plan included:

- the assignment of the Deputy Director of the Ministry to supervise its implementation;
- identification of a sample of schools to participate in a Pilot Project in which action research processes were used to develop local plans;
- a review of Pilot schools to assess the extent of local engagement.

This aspect of the project was almost immediately successful, with five of the six schools indicating they had initiated a range of meaningful projects and the remaining school indicating they had been unable to effectively establish a plan but requesting support to do so. Local members of the national team supporting these initiatives were enthusiastic about the process, not only because of the positive outcomes, but because of the process used. "This is so *democratic!*" one exclaimed delightedly as we left a school on our way back to our base in Dili.

The Ministry itself was equally delighted and indicated to regional superintendents that they should assign three experienced principals in each office to supervise the implementation of the Plan on a national scale. In the following year, both the superintendents and the assigned principals were engaged in workshops to enable them to understand and, in the case of the principals, to practice the skills required in enacting the plan. A national team was formed to support the work of the regional teams, and regular review and planning workshops provided the means to assess projects and to work through problems that some were experiencing.

   A review of the outcomes of this and other projects indicated that of the four projects initiated by the Ministry in conjunction with UNICEF the Parent Participation project had clearly made the most impact. Parent projects differed according to the needs and conditions of local schools, but included rebuilding destroyed classrooms, repairing or constructing seats and desks, providing water and sanitary services to the school, and constructing teaching materials. Since funds in this poor, newly-emerging nation were very restricted, people in their communities either made use of local resources, or found ways of raising funds – a school garden for producing vegetables to sell with other homemade edibles at the local market, and a fish farm for the same purpose, as examples.

   In all of this, it was most edifying to visit the schools for review sessions and to see the delight and sense of accomplishment in the people as they demonstrated the outcomes of their efforts. A sense of "empowerment" was evident in their excitement and enthusiasm. The same was true of regional Ministry review and planning workshops facilitated by the national team. The sustainable organizational processes now embedded in regional Ministry offices is best presented from my field notes at the final workshop before I finished my contract:

> And so, it comes down to this, hunched dispiritedly over my computer, the hiss of the computer playing counterpart to the hot buzz of three small fans that had, over the past three days, fed a warm jet of air over the people that happened to be sitting directly beneath them in the large unenclosed meeting area. Testament of the heat and humidity was the red heat rash in my arm pits, and my continuous trips to the water bottle to replenish depleted body fluids.
>
> But in all that, I sit here with a soft warm glow inside me, thinking quietly of what I have seen these past days. Of men, mainly men in this very traditional patriarchy, and a few women, engaged in wonderfully soulful work, the work of their nation. Working with a will, with intensity and passion, oblivious to the hardness of their surroundings, engaged so competently in their work. My notes record the technical details:
>
> "The district coordinators present their reports, so rich and fully detailed, for the most part, but each with its distinctive flavor and some revealing deficiencies in their planning. But the feedback they get from their colleagues is informative and productive, challenging each other to articulate well-targeted objectives and strategies, commenting directly on weaknesses, and providing comment and counsel that provides the means to repair weaknesses and strengthen planned processes."
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> And although I have been only one of many to contribute to this project, I can see so much that derives from my work, in both the structures and processes of their work. I cannot help the small glow of satisfaction that sits quietly within me, a glow fanned to warmth by the non-verbals that come to me from the people themselves.
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> And the fact is that I have actually done little more than plan this workshop with them, then observe as they have rolled it out! I have become redundant, in a most direct way, and sit in awe at the way they continue to evolve, creating complex plans, solving significant problems with creative

ease, and focusing, always focusing, with such intensity that I wonder how they sustain it. And this intensity they direct not only at the work in front of them, but at each other as they demand, just demand through their feedback, that the work be of the highest quality, both through their words and their body language. They are very direct. "That's not good enough. There is not enough detail to provide guidance for the process. There is no link between the objectives and the strategies. By what means are you going to attain those outcomes with the people with whom you work?" And demand those in the spotlight provide answers; real, practical answers, not cover stories. And if these are not forthcoming, to switch tracks and say something like "Would it work if you…" and provide a suggestion, one picking up from another, with "Or could you….". Direct, demanding, but nurturing, all at once. I love the way they work together. What a group, what a team, what a cadre, since they have the air of a group of people on a mission. What wonderful people to work with.

This interpretation of a project that used action research processes as a means for framing and implementing national policy in a developing nation illustrates the potential of action research. Commencing with conversations with senior officials in the Ministry and UNICEF, workshops within a diverse sample of locations provided the material from which pilot projects were instituted. The success and enthusiasm thus generated provided the impetus for the national authority to institute developmental processes in a broader sample of schools at the regional level. These were directed by district superintendents who had collectively been informed of activities emerging from the initial pilot and consulted about delivery in their regions. At each phase, the participatory processes of inquiry provided the means to incorporate the perspectives and agendas of the different stakeholding groups, thus linking the implicate, micro, mezzo, macro, and meta levels of development. These provided the means of building the capacities of people to sustain the outcomes of the initial project into the national system of education, something that was acknowledged by the Director General of the Ministry in the final meeting of the supervising committee.

5.3   The Continual Influence of Educational Action Research (Bob Dick)

The 1960s and early 1970s saw what could have become a blossoming of more democratic workplaces and classrooms. The ferment of the times arose from a realization that the world was changing rapidly, and the change was escalating. In such a world, as Burns and Stalker (1961) showed, a loosening of bureaucratic approaches was seen as desirable. Otherwise, organizations were less able to respond to their increasingly turbulent environment. Wilfred Carr (2006) explains that action research, too, experienced a resurgence at that time.

Even though the rate of change has continued to increase since then, the blossoming democracy was short-lived. The loosening of control, with its threat of

empowering the masses, generated a backlash. Nancy McLean (2017) has documented how global elites set out to regain their influence. They largely succeeded. Around the world, governments took their economies rightward, stifling many of the emerging initiatives. The use of action research receded, too, in many settings. It was mostly within education, in the schools and higher education institutions, that it was kept alive.

Viewed from today's perspective, some of the educational action research of the time seems more like traditional research. Sagor (e.g. 2005) describes action research that could count almost as quasi-experimental research. But the educational action research literature served to keep action research in the eye of enough researchers and practitioners. Again, viewed from the present, a surprising amount of classroom action research at the time consisted of teachers improving their own practice without involving their learners in the research. Yet, it is fair to assume that they would have regarded the learners as key stakeholders in the learning.

Engaging participants fully can be difficult. Participation isn't "all or none." It can vary along a continuum. Some learners may not wish to be engaged, especially if they have been deprived of agency through disempowering processes or structures. There may be some truth in Graham Webb's (1996) assertion that some action researchers are less participative than they would claim. Consistent with much of Chris Argyris's extensive research (e.g. Argyris, 2010), most of us often fall short of our aspirations. We don't always practice what we preach.

In addition, action research with little or no participation will at least encourage reflection and improvement on the part of the educator. That is likely to be better than no action research at all. Further, achieving full participation can be difficult. Some educators may lack the requisite skills. Perhaps the extent of participation can usefully be regarded as a choice instead of being left unaddressed (Hayward, Simpson, & Wood, 2004). That said, most educational action research *was* and *is* participative, some more than others. Educators such as Stephen Kemmis, for example, advocate a form of action research that is critical and emancipatory. The 2014 revision of *The Action Research Planner* (Kemmis, McTaggart, & Nixon, 2014) is an example.

Now, in a second resurgence reminiscent of the 1960s, the use of action research in education – and elsewhere too – seems again to be growing. There are still obstacles, as Greenwood and Levin (2006) explain, not least because of a shift in universities from collegialism to managerialism. However, in a web search for action research literature, the field of education is likely to account for more hits from a search engine than would any other comparable field.

Hase and Kenyon (2000) introduced the term "heutagogy" to education. They saw it as a step beyond andragogy, from learner-*centered* learning to learner-*directed* learning. Heutagogy is part of a wider movement to engage learners more directly in decisions that affect them. Andragogy was contrasted by Knowles (1975) to pedagogy, learning by children. However, there is evidence that andragogy, and perhaps even heutagogy, can apply as well to children as to adults. Chapter 20 of this volume describes two examples of approaches to education that offer high engagement and involvement to learners. One is the

Werkplaats Kindergemeenschap – the Children's Community Workplace – an elementary and high school in Bilthoven, Holland. The other is a largely self-directed university class.

Influenced by or directly using action research, initiatives such as Student Voice can work at the school level, as well as in the classroom. Cook-Sather (2014) has reported a growth in the popularity of such programs. A Student Voice program that one of us is involved in is working over three years to collect information from students at a number of schools that have volunteered to be involved. The information will be fed back to the schools, to assist them to increase student involvement and participation within the classroom. The program also includes workshops to develop skills at engaging students and Student Action Teams to involve students directly in helping to guide the implementation of Student Voice. Jessie Robertson (2017) describes a similar approach in New Zealand. The aim is to renegotiate the roles of educators and learners.

Action learning and action research had different origins. For much of their lives, they had almost completely separate literatures. Recognizing the similarities, there were practitioners in the 1980s who used both and regarded them as allied. In the late 1970s, Charles Margerison (1978) argued for using them in combination for management education. He believed that such an approach would engage learners more directly in influencing what they learned, thus improving the quality of learning. He expressed some dissatisfaction at how rare such approaches were at the time.

Ortrun Zuber-Skerritt expended some effort in bringing action research and action learning together more officially. She organized a conference in Brisbane in 1990, called "Action Learning for Improved Performance" (Wadsworth, 2014). One outcome of that conference was the formation of an organization, ALARPM – Action Learning, Action Research, and Process Management. This name reflected the three themes of the conference and the organization. (The organization is now ALARA – Action Learning Action Research Association.)

Subsequently, Zuber-Skerritt (2011) coined the label PALAR – participatory action learning and action research – to refer to an approach that integrated both. In that book, Zuber-Skerritt explicitly applied PALAR to educational leadership. In the same year, Judith Kearney and Zuber-Skerritt (2011) applied PALAR to counteracting educational disadvantage in a Samoan community in Logan, south from Brisbane. Lesley Wood has used PALAR in South Africa for community education and engagement (Wood, 2016), and within the university to encourage critical reflection (Wood et al., 2015).

Richard Teare, a colleague of Zuber-Skerritt, used similar approaches when he set up GULL, the Global University of Lifelong Learning. GULL pioneers action-learning-based educational and developmental initiatives in many parts of the developing world (Zuber-Skerritt & Teare, 2013).

In the mid-1990s, the University of South Australia (UniSA) marketed a PhD program in Singapore. Candidates were encouraged to use action research as their methodology. One group of four candidates, co-supervised by Alan Davies and Bob Dick, did all use action research as their research approach. They worked in very different subject areas – introducing action learning to an

organization; installing business continuity processes in an international bank; improving computer-aided design; and nurse education. Despite these differences, they and their supervisors worked as a team, supporting one another. All communications were shared between all candidates and supervisors.

The combination of action research and action learning served its purpose well. The four candidates were the first four of all of the UniSA candidates to graduate. They completed their research successfully in under four years. This was done while they continued to work full time in their usual demanding managerial positions (Sankaran et al., 2006).

Based on this experience, Southern Cross University subsequently established an action research PhD program in Singapore. This work was done in partnership with one of the earlier graduates. It used larger cohorts that also worked as an action learning team. As with the earlier cohort of four, candidates researched their own practice within their present employment. In doing so, they improved their practice as managers or professionals, obtained a doctoral qualification, and contributed to their organizations. The combination of action learning and action research was instrumental in providing the multiple outcomes. In addition, useful cross-fertilization occurred because of the different content areas of the PhDs.

Another approach informed by action learning and action research is work integrated learning, or WIL. Joe Raelin (2016), a university educator and one of the key authors of WIL, uses and writes about a variety of action research approaches. WIL moves learning out of the classroom and into the workplace. The Australian Department of Education and Training prepared a research report (Billett et al., 2015) on learning that was fully work-integrated or supported by other activities. The report endorsed work-based learning as a suitable approach, citing the contribution to individual, workplace, and workforce goals. Similar motivations underpin the international approach to learning and development known as 70:20:10 (Wilson et al., 2016). This approach assumes that 70:20:10 is a desirable ratio of challenging assignments (70%) to developmental relationships (20%) to formal coursework and training (10%).

5.4   The Power of Living Theory (Jack Whitehead)

My worldwide perspective on action research in education began its evolution in 1976, as a lecturer in education at the University of Bath, in coordinating a local curriculum development funded by The Schools Council in the United Kingdom. In the project, I worked and researched with six secondary school teachers to improve learning with 11- to 14-year-olds in their mixed-ability science groups. I produced an evaluation report (Whitehead, 1976a) in which I explained the educational influences in learning of the participants in terms of academic models of evaluation, change in the teaching learning process from formal instructions to informal instructions to discovery learning and to inquiry learning, as a synthesis of four models of innovation, and as a new view of the curriculum. On submitting the report to the teachers, for validation, I was surprised when they

responded that they could understand the academic models I had used to explain their educational influences in learning, but they could not see themselves in the report. Immediately after this point was raised, I could see what I had done. I had eliminated the voices and explanations of the teachers by using conceptual models from the academic literature. The teachers asked me to go back to the data I had collected with the pupils and teachers and produce a report in which they could see themselves and their pupils.

I went back to the report and, working with two of my postgraduate teacher education students, Paul Hunt and Aaron Evans, I produced a very different report (Whitehead, 1976b). The teachers all agreed that this was a valid explanation of their educational influences in their own learning and the learning of their pupils. The introduction to the report states:

> The report begins with statements from teachers in mixed-ability science lessons of their problems and possible solutions. These problems included the improvement of relations between teachers and pupils and the organisation of resources for enquiry learning. In response to these problems, the network of in-service support, described in section 4, was created. This network involved a Resource Collection and Evaluation Service from Bath University and financial assistance from Wiltshire L.E.A. and The Schools Council.
>
> A central focus in the report is the process of self-evaluation, by the teachers, of the relationship between what they intended to do and what they achieved in practice. The teachers were assisted, in this process of evaluation, by video tapes of their classroom practice and interview data on their own intentions and their pupils' responses. This information was provided by the Science Centre of Bath University. You will see that improvements in learning occurred through the creative and critical powers of individual teachers and a high degree of cooperative activity.

This was my first explication of the use of action-reflection cycles in enquiries of the form, "How do I improve what I am doing?" It emerged from a participatory process of cooperative activity and an analysis of data. I continue to use this action-reflection cycle as a distinguishing quality of my present worldwide perspective of action research. It involves expressing problems or concerns when values are not being lived as fully as possible; imagining possible ways of improving practice and creating an action plan; acting and gathering data to make a judgment on the effectiveness of the actions, evaluating the effectiveness of the actions, and modifying the actions in the light of the evaluations; and producing an evidence-based explanation of educational influences in learning.

My perspective of action research in education evolved from the above local curriculum development project through my participation in the first, second, third, and seventh World Congresses of the Action Learning Action Research Association, in Brisbane, Bath, and Gröningen. In the first Congress in 1990, I was influenced by Colin Henry's evaluation "If Action Research Were Tennis," in which he stresses the importance of making explicit the principles that

distinguish the research inquiries as action research. My engagement with issues of globalization as a worldwide phenomenon affecting action research began with Robin McTaggart's analysis of economic rationality in the second Congress in 1992:

> Nevertheless, the new "economic rationalism" is a worldwide phenomenon which "guides" not only the conduct of transnational corporations, but governments and their agencies as well. It does so with increasing efficacy and pervasiveness. I use the term "guides" here in quotes to make a particular point. Economic rationalism is not merely a term which suggests the primacy of economic values. It expresses commitment to those values in order to serve particular sets of interests ahead of others. Furthermore, it disguises that commitment in a discourse of "economic necessity" defined by its economic models. We have moved beyond the reductionism which leads all questions to be discussed as if they were economic ones (de-valuation) to a situation where moral questions are denied completely (de-moralization) in a cult of economic inevitability (as if greed had nothing to do with it). Broudy (1981) has described "de-valuation" and "de-moralization" in the following way:
>
>> De-valuation refers to diminishing or denying the relevance of all but one type of value to an issue; de-moralization denies the relevance of moral questions. The reduction of all values – intellectual, civic, health, among others – to a money value would be an example of de-valuation; the slogan "business" is business' is an example of de-moralization (Broudy, 1981: 99). (McTaggart, 1992, p. 50)

In 1994, I helped to organize the third Congress on the theme of "Accounting for Ourselves" at the University of Bath, in the United Kingdom. The theme of accounting for ourselves was specifically focused on the responsibility of action researchers in education to produce and share evidence-based explanations of their educational influences in their own learning, the learning of others, and in the learning of the social formations that influenced practice and understandings. I call such explanations *living-educational-theories* (Whitehead, 1989). The global influence of this idea in a worldwide perspective on action research in education can be seen in the doctoral theses at on the ActionResearch.net website (http://www.actionresearch.net/living/living.shtml).

In relation to this perspective, I want to highlight the Doctor of Business Administration program at the University of Humanistic Studies in Utrecht and the pedagogical action learning approach that was developed there by Professor Hugo Letiche and his students. The topics of two recently awarded doctorates will serve to highlight the global perspectives of these researchers. The first is Anne Keizer-Remmer's (2017) thesis on "Underneath the Surface of Cosmopolitanism: In Search of Cosmpolitanism in Higher Education." The second is Ann Mannen's (2018) thesis on the "Inclusive Internationalisation of Higher Education."

The evolution of my perspective has also been influenced by technological advances in visual and digital data collection.

In 1972, I was the Head of Science at Erkenwald Comprehensive School in Barking, London. The inspectorate provided me with a video camera and recording equipment and asked me to explore its educational potential. The first thing I did was to turn the camera on myself and videotape a lesson in which I believed that I had established enquiry learning with my pupils. On viewing the videotape, I was shocked to experience myself as a "living contradiction" in the sense of holding together the belief that I had established enquiry learning with my pupils in the sense that they were asking questions to which I was responding, and seeing that I was actually giving the pupils the questions to ask. This experience of seeing myself, my "I," as a living contradiction in my question, "How do I improve what I am doing?" continues to have a profound influence in my perspective. The main logic of Western Academies is influenced by Aristotelian logic which explicitly eliminates contradictions from theories and claims that everything is either "A" or "not-A" with the Law of the Excluded Middle. Given my experience in my action learning and action research, that I exist as a living contradiction, I needed a logic that could embrace contradiction in my explanation of educational influences in learning. I turned to the dialectical logic of Ilyenkov (1977) and used this in my own doctorate (Whitehead, 1999).

While still using insights from propositional and dialectical theories in the evolution of my perspective, I could see from videotapes of workshops that I needed a living logic to explain educational influences in learning as I developed an inclusional awareness of existing within space and boundaries that are connective, reflexive, and co-creative. This living logic of inclusional awareness (Whitehead & Rayner, 2009) was accompanied by the recognition that my explanatory principles of educational influence included energy-flowing, ontological, and relational values as explanatory principles. My perspective evolved with the help of Vasilyuk's (1991, pp. 63–64) insight from his "energy paradigm" that energy is expressed in everything we do, but that the relationship between energy and values, energy and meaning, and energy and motivation is only weakly understood.

In developing research techniques to clarify meanings of embodied expressions of energy-flowing values, I used a process of "empathetic resonance" with digital visual data from educational practices. This use of digital visual data was presented at the 7th World Congress. The multi-media presentation (Whitehead & Huxtable, 2006a) can be compared with the printed text-based version, published in the Congress proceedings (Whitehead & Huxtable, 2006b), to understand what is being lost when printed text is the sole medium of communication for embodied expressions of meaning.

In developing my worldwide perspective on action research in education, I want to acknowledge the importance of de Sousa Santos's (2014) ideas. In my review of these ideas (Whitehead, 2016) on the abyssal line, subaltern insurgent cosmopolitanism, epistemicide, ecology of knowledges, and intercultural translation, I explain their influence in the evolution and transformation of my own living-educational-theory, and in my exploration of the implications of Santos's ideas for Living Theory research as a social movement.

In developing this perspective, I want to draw attention to Inoue's (2015) arguments for bringing Eastern epistemological traditions into this perspective:

> There are many different ways of defining mindfulness, but for the purpose of this book, mindfulness is best captured as a state of mind that accepts and accommodates multiple and seemingly conflicting perspectives, beliefs and assumptions. In Eastern epistemological traditions, it is considered to be a path to develop a deep awareness of the complexity of reality as well as what your mind is up to in the complexity. Mindfulness rejects a rigid persistence to only one perspective or belief system that narrowly confines your mind. It is characterized by a mental dispassion that is open and detached from one particular value system. It allows you to see the world from diverse perspectives and critically examine your actions and assumptions… (p. 12).

I also want to draw attention to the sustained commitment Caitriona McDonagh, Mairin Glenn, Bernie Sullivan, and Mary Roche, who – since receiving their living- theory doctorates in 2006–2007 – have helped to form the Network Educational Action Research Ireland (NEARI). Their latest publication on "Learning Communities in Educational Partnerships" stresses the importance of action research as transformation (Glenn et al., 2017).

In conclusion, I want to emphasize the importance of Mary Hawkesworth's (2016) ideas on embodied power and demystifying disembodied politics. Hawkesworth explains why pervasive practices of racialization and gendering remain unrecognized and unstudied in the context of mainstream political science. Hawkesworth suggests that certain disciplinary assumptions about the nature of politics and the requirements of scientific study of the political world have rendered embodied power beyond the threshold of visibility:

> Indeed, processes of racialization and gendering developed over the past five centuries under the auspices of "science" have been embedded in law, custom, accredited knowledge and diverse social practices, lending coherences to forms of unknowing that continue to haunt political science in particular and public life more generally. (p. 5)

In the 10 years of publication of the *Educational Journal of Living Theories* (http://ejolts.net/about), the embodied power of practitioner-researchers has been included through multi-media texts that have clarified and communicated the embodied expressions of ontological values that action researchers have used to give their lives meaning and purpose. These values have been used as explanatory principles in explanation of educational influences. The gathering together of action researchers in a global social movement that carries hope for the flourishing of humanity is being informed by the worldwide perspective of action research in education discussed above. I am suggesting that we can strengthen the educational influences in learning of such a global movement of action researchers through working and researching cooperatively with Living Theory as a Way of Life (Whitehead, 2018).

5.5   Conclusion: Act Locally, Think Globally

Contributions to this chapter reveal the extent to which action research continues to contribute to the development of more effective and meaningful educational systems that operate for the good of the people they serve. In a global context dominated by increasingly centralized and disempowering political and economic forces, action research provides the means for teachers, administrators, parents, and community groups to work within their classrooms, schools, and educational systems in ways that truly benefit students and their families, communities, and nations. Ultimately, participatory action research provides the means to work with individuals and groups, not just for their individual benefit, but to build civil society, to engender a more humane democracy, and to provide the means to live in a more sustainable world.

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Part II

Theories and Principles of Action Research in Education

6

Rigor in Educational Action Research and the Construction of Knowledge Democracies
Lonnie L. Rowell

6.1 Introduction

This chapter examines rigor in educational action research in the larger context of education research. Many readers might say that rigor needs to be addressed in this handbook because, without rigor, the "research" side of action research fails crucial tests of its value. As questions about rigor have historically been a thorn in the side of educational action research and action research in general (Feldman, 2017; Friedman, 2006; Hodgkinson, 1957), rigor needs to be addressed explicitly to counter the tendency among many education researchers to dismiss action research as a "lesser" contributor to knowledge, if a contributor at all.

In the most basic terms, rigor is simply the quality of being extremely thorough and careful in conducting research.[1] This quality underlies our core understanding of what constitutes good research. Rigor also can be thought of as the glue that binds research to science. In a science journal editorial, Professor Jorge Allende (2004) of Chile, a distinguished biochemist and biophysicist, asserts that rigor is the very essence of scientific work. In his view, rigor represents "a dissatisfaction with uncertainty, with inaccurate answers, with unprecise [sic] measurements." With reference to the life and work of Leonardo da Vinci, Allende acknowledges the importance of a certain obstinacy in conducting scientific research. A favorite expression of da Vinci's, Allende tells us, was "*ostinato rigore*," or obstinate rigor. Allende recognizes rigor as an attitude that "does not allow laziness, the lack of attention, the acceptance of inexact methods, the adoption of groundless conclusions, [or] accepting the predominant opinion despite the lack of data which sustain it" (n.p.). Here is the case, in other words, not only for the centrality of rigor in all domains of scientific research but for the spirit with which rigor is embraced by researchers.

While there may be something appealing in the strict precision associated with rigor, in particular if the application of such exactness can yield convincing answers to significant questions about improving lives, the harsh inflexibility can be quite

problematic. The kind of rigidity in the traditional notion of scientific rigor that may be essential to both the safety and the usefulness of laboratory experiments does not fit well with the ebb and flow of daily work in educational environments. This issue divides research associated with social sciences and research in the natural sciences. From the perspective of research design, the social sciences tend to utilize *flexible* research designs, while the natural sciences call for *fixed* designs (Robson & McCartan, 2016). The question from an educational research perspective, including educational action research, is twofold: (i) what research methods fit best with efforts to gather data and make sense of things happening in the give and take of actual educational environments?; and (ii) how can the methods be used in the rough and tumble daily world of education practice, without stooping to intellectual laziness or imprecise and self-serving observations about "what is happening"?

In other words, just how might an attitude of obstinacy come into play in the trenches of action research in education? Is it possible to use flexible research designs while adhering to a spirit of determined accuracy? Furthermore, given the differences between traditional research and action research (e.g. McMillan, 2012; Rowell, Polush, Riel, & Breuer, 2015), do the attitudes most closely associated with action research reflect a different spirit than those associated with standard views of scientific rigor? If so, what might those attitudes be and how does the presence of this difference impact the assessment of the quality and validity of educational action research? Part I of this chapter seeks to unpack and investigate a bulky suitcase of questions and concerns such as those included above. Due to the space limitations of a chapter, not all of the questions can be adequately unpacked. Space limitations also have led me to restrict the discussion to educational action research in the United States, with consideration of the now vast spread of action research studies across the globe left to other sources (e.g. Bradbury, 2015; Rowell, Bruce, Shosh, & Riel, 2017a). Yet, from the unpacking that is done, a different view of rigor emerges. This view calls for holding action research projects accountable to standards of rigor that better fit the purpose and intentions of action research as an alternative to the view of science now dominant in modernity (Carr, 2007).

Part II of the chapter introduces a view of rigor in educational action research as a stance of opposition within the larger domain of education research. A wide variety of considerations are taken up, including the importance of practice-based knowledge production and the strategic importance of building knowl-edge democracies in education. Examples of initiatives based on democratizing knowledge in education are presented and discussed in the context of rigor. The examples include visions for developing knowledge democracies, long-standing programs of teacher-led collaborative action research, and other approaches to strengthening involvement with practitioner research in education.

Given the reemergence of action research in education evident since at least the 1990s (Feldman, 2017; Mertler, 2016; Pine, 2009; Rowell, Bruce, et al., 2017a), readers can be confident that at least some action research is going to occupy some space within the knowledge base of the field of education. If the validity of action research does not come solely through the disciplined practice of rigor as applied to the traditional fixed research design approach, then where does the validity of educational action research come from? Furthermore, if knowledge in the field is to be mobilized in the service of policymaking at local, state, and

national levels, how can the knowledge bases of educational action research stand up to the current infrastructure of influence and power associated with identifying *what works* and disseminating the findings and associated theory and practices throughout the vast educational practice systems in the United States?

6.2 Part I: Educational Research, Action Research, and Educational Practice

This first part of the chapter begins with consideration of the overarching status of the connection between research and practice in education. In an examination of some 40 years of professional literature, Pine (2009) concluded that "although it has been assumed that educational research and practice should be intimately tied together, research and practice seem to be more disconnected and alienated from each other than ever before" (p. 3). Further evidence of Pine's overarching assertion is readily found, with a trail of conflicting views regarding the state of educational research found in the *Educational Researcher*, the highly ranked, peer-reviewed academic journal established in 1972 on behalf of the American Educational Research Association (AERA). Although the debates go back much farther, the 12-year period from 1993 to 2004 provides a fascinating glimpse into the conflicted world of education research and the efforts of educational researchers, policymakers, and practitioners in education to make sense of the mess.

Kaestle (1993) provided a significant provocation in a 1993 article titled "The Awful Reputation of Education Research." His commentary was based on interviews with leading figures associated with education research examining the federal government's role in supporting educational research over the previous 25 years. Kaestle's interviews identified three ingredients of the "dismal reputation" (p. 23) of education research and development: (i) research in education "doesn't pay off" (p. 27) in relation to the costs of research compared with the benefits; (ii) the great disarray in the organization of the education research community; and (iii) the field is politicized to the extent that it lacks stability, with alternating periods of partisan disruption and efforts at political and personal-professional reconciliation resulting in a swinging pendulum of governmental agency priorities and research funding opportunities. Overall, Kaestle's case was not that there had been no good educational research; however, his overall conclusion indicated that the full body of research had done little, if anything, to enhance the status of education research among either policymakers or practitioners.

Sroufe (1997) revisited the theme four years later and found little evidence that substantial progress had been made. Sroufe cited a "further 'dissing' of education researchers" (p. 26) associated with yet another government report, this one issued by a President's Committee of Advisors on Science and Technology (PCAST) during the Clinton presidency. The report called on President Clinton to appoint a group of research experts *outside* education to develop an educational research agenda and then implement it as a way to avoid the compromised quality of research conducted under the auspices of the Office of Educational Research and Improvement (OERI). According to Sroufe, the public comments

of some members of the PCAST panel were particularly disturbing, with one panel member declaring that "the field of education research was characterized by 'mediocrity'" (p. 26). In a stinging rebuke to education researchers, panel members generally agreed with a call for a "migration" of surplus scientists from areas outside of education research to help fix the mediocrity.

In the same issue of *Educational Researcher*, Kennedy (1997) more directly addressed the relations between classroom practice and education research. Kennedy saw "a trend toward pessimism" (p. 4) about education research that stretched back for at least a century. She summarized "a virtual catalogue of reasons for [the] perceived lack of usefulness of educational research" (p. 7) into four general hypotheses: (i) the research is not persuasive or authoritative enough; (ii) the research lacks relevance to practice; (iii) the ideas generated by research have not been accessible to educators; and (iv) the education system as a whole is simply too difficult to change and is therefore incapable of taking in education research in a meaningful way. The Kennedy article is most noteworthy for her discussion of the dynamics between educational research and practice in the field, as seen by teachers. Kennedy called for the closer examination of evidence from naturalistic education studies regarding what takes place in classrooms and the ways teachers think about their work. In her view, examining teachers' assumptions about educational practice and about the relations between practice and knowledge development about practice would be essential to strengthening the possibility of better linkages. However, both research and practice are impacted by shifting social and political contexts, and this shifting presents massive barriers to a straightforward alignment in which research influences practice and practice informs research.

While Kennedy's assertions stayed close to the ground of daily classroom practice, another *Educational Researcher* initiative again addressed the overarching concerns with research, policymaking, and practice discussed by Kaestle (1993). In 1997, the journal published a two-part examination of the differing visions for improving education research held by AERA past-presidents from the period 1963–1964 to 1993–1994 (Cooley, Gage, & Scriven, 1997; Berliner, Resnick, Cuban, Cole, Popham, & Goodlad, 1997). The *"Vision Thing"* (p. 2) section introduced by Donmoyer (1997) represented "the beginning of an extended discussion among former AERA presidents" (p. 2) that hopefully would extend out to the association's members and beyond.

Overall, the two articles provided quite a menu of options for improving education research, some far-reaching and controversial. Larry Cuban, in Berliner et al. (1997), acknowledged Kaestle's reporting on the "awful reputation" and asserted that significant improvement was unlikely within AERA's current organizational structure (Berliner et al., 1997, p. 16). Cuban saw a need to counter the "federalization of research" in education, which tied research to the politicized institutional maneuvering and restructuring of federal institutions involved with education. He suggested physically moving AERA away from Washington, DC, as a part of moving on from being a "bit player on a large stage of an endless melodrama of federal policymaking in education" (p. 16). Michael Scriven (Cooley, et al., 1997) also took a highly critical stance. He asserted that AERA had suffered a near total failure in its "principal duty" (p. 19) of identifying educational research best practice and improving it. He called for a paradigm-breaking approach

focused on a turn toward "Expert-Practitioner-Based-Knowledge" (p. 21) and away from Theory-Based Knowledge.

Eisner (1997) further stirred the embers of debate in asserting that research did not "belong to science alone" (p. 5). With a broad look back at the early debates regarding the privileging of quantitative vs. qualitative research methods, Eisner acknowledged that the field had come a long way and called for going further by embracing "alternative forms of data representation" (p. 6). Arguing for a broadened perspective, he explained that "the forms that display what we make of what we have chosen to call 'data' are as old as the hills" (p. 5). Knapp (1999) seemed alarmed in his rejoinder that Eisner was choosing to turn away from the "true experiment" (p. 19) as the predominant paradigm for educational research. Eisner concluded the exchange by noting that the kind of research that Knapp preferred is problematic because it is so disconnected from actual practices in schools.

Proposing a reconciliation of perspectives, Mayer (2000) made clear that his preference was to "keep educational research firmly within the domain of science" (p. 38). To Mayer, "science involves arguing from methodologically sound data," and if education researchers were to turn their backs on science, they would be taking a "leap into the abyss of relativism" (p. 39). Yet, Mayer seems to have missed Eisner's point. Eisner (1997), along with Barone (2001), was advocating for a broader conceptualization of what constitutes data and, therefore, how to work with that data in a responsible and intellectually rigorous manner.

By 2002, new political developments in Washington, DC, stirred both hope and trepidation (Feuer, Towne, & Shavelson, 2002) regarding the path for education research to follow. Some leaders in the field now fervently called for full-scale adoption of the favored *evidence-based* practice orientation (e.g. Slavin, 2002). However, the evidence-based orientation was criticized by other scholars (e.g. Olson, 2004) as the new bottle into which the old wines of traditional research were to be poured. Writing nearly 10 years after the initial Kaestle provocation, Burkhardt and Schoenfeld (2003) found little improvement in the reputation of education research. In their view, the biggest mistake being made was the lack of credible models for linking research with practice (p. 3). Adding a new term, they called for development of *design research* as the heart of the education research enterprise.

In summary, three themes run through the debates of this period. The first is a concern about the reputation of education research and a questioning of the actions needed to improve the reputation. The second theme is a broader philosophical concern with the relations between science, research, and education research. Whether labeled as pessimism or as the proclamations of "counsels of despair" (Cage, 1996, p. 5), those within the education research community who chose to question "what constitutes legitimate forms of inquiry in education, and of those forms of inquiry what should count as research" (Eisner, 1997, p. 5) faced an uphill battle. It is notable that educational action research barely makes an appearance in this debate. The third theme is the disconnect between the knowledge production enterprise associated with education research and the daily practice of educators in the nation's more than 98 000 public schools.[2] Kennedy's (1997) discussion of how teachers think about their work and the

challenges of integrating this thinking with making good sense of research provides a thought-provoking example of this theme.

Seeing opportunities as well as potential pitfalls in Congress's adoption of scientifically based research as the standard for policy adoption and funding in education, Feuer et al. (2002) sought to avoid an overly partisan divisiveness. They promoted adoption of a more inclusive orientation toward *scientific culture*, with terms like "science, research, scholarship, and inquiry" (p. 5) used interchangeably in the context of discussing the norms and ideals of educational research. In their view, bridging the gap between practice and research required an increased focus on the things that united knowledge workers and educators. This focus could be achieved through agreement on a set of "epistemological or fundamental guiding principles" (p. 7) that constitute "norms of behavior that reflect expectations for how scientific research will be conducted" (p. 7).

Yet, while seeking such agreement might help calm the troubled discourse among formal education researchers, it seemed then, and still seems now, highly unlikely that establishing such behavioral norms for research would reach far enough into the communities of practice in the nation's 13 500+ public school districts to make a difference in the split between research and practice.[3] Practitioners of PreK-12 education were either left out of the proposed agreement or were required to somehow become educationally bicultural and bilingual – that is, they needed to be able to engage daily with their practice as educators as well as enter into the rarified air of the discourses of scientific culture. Kennedy (1997) had already shown how unlikely this orientation was without specifically addressing how *teachers* think about knowledge and its production. Nothing in the Feuer et al. (2002) proposal addressed this issue.

The themes identified in Part I indicate important boundaries that require the attention of educational action researchers. I have hovered at some length over this particular sharing of comments and articles by leaders in the field of education research for a couple of reasons. First of all, these sources indicate the complexities attending questions about rigor in education research and educational action research. Far more than technical matters of internal validity and generalizability are at stake, including the politics of research funding and the place of science in various social domains. Second, short of outright authoritarian censorship, it is nearly impossible to imagine a scenario in which the differences introduced above will be resolved to everyone's satisfaction.[4]

In fact, the lack of full satisfaction is an intrinsic part of the research enterprise in general. What researchers do is ask questions, and when one has been answered, two more appear. Yet, from a teacher's perspective, the 30 children in my classroom today will be back again tomorrow, and with no time to engage in the grand debates of epistemology and scientific culture, I had better be ready to do something productive with these children. From a classroom perspective, everything about the debates summarized in Part I means little if it does not address the split between daily practice and research in education. Lastly, although during the period considered (1993–2004) significant momentum in educational action research was quite evident in the United States and around the world (e.g. Altrichter, 1993; Atweh, Kemmis, & Weeks, 1998; Calhoun 1994; Elliott & Whitehead, 1982; Noffke & Stevenson, 1995; Reason & Bradbury, 2001),

you would not know it based on the discourses among leaders in AERA and other prominent education researchers.

The tensions discussed in Part I have been a part of considerations of the meaning of action research for decades now (e.g. Carr & Kemmis, 1986; Elliott, 1976; O'Hanlon, 1996; Swantz, 2008) and have spawned efforts to distinguish science and "action science" (Friedman & Rogers, 2013), with action science as a theoretical and social space based on creating communities of inquiry within communities of practice. The challenge is that in the dominant discourse of education research, the ways that education research is seen as contributing value to considerations of what works in education have worked against valuing the professional judgment of educators as well as their capacities for applying rigor to the search for practical and creative solutions to problems in varied contexts of daily educational practice (Rowell & Hong, 2017).

Rather than asking "what approaches to knowledge creation might best serve establishing vibrant and lasting connections between education research and practices in advancing student learning and educator development?" something seriously problematic has been happening in the knowledge production and knowledge dissemination spaces in which research and practice encounter each other. The current knowledge production and dissemination system represents a barrier to a more diverse view of knowledge mobilization and a more open and integrated system in which traditional perspectives on scholarly work by academics might be balanced with appreciation of the importance of practitioner research in the trenches of daily educational practices.

This barrier not only perpetuates the disconnection between research and practice but reinforces the sense that educators in practice are not capable of producing knowledge. It contributes to the consignment of educators to closed-off, factory-like work environments that shut down the social imaginations of both educators and students, stifle the nurturance of hope for a better future, and marginalize the importance of preparing young people for vital roles in democratic society (Giroux, 2014). Educators are reduced to being technicians who toil to follow best practices' prescriptions and curriculums through routinized lesson plans based on formulas and quick fixes. This daily routine works against the reflective practice which educators are told repeatedly they need to adopt (e.g. Dana & Yendol-Hoppey, 2014). To get over this barrier, Pine (2009) asserted that what is needed is a revitalized "epistemology of practice" (p. 25) based on an acknowledgement of different ways of knowing what goes on in education systems. In his view, such an orientation, with educational action research at the center, holds hope for bringing about a "renaissance of school-based inquiry" (p. 25).

6.3   Part II – Rigor and Knowledge Democratization

It is within the context discussed above that I situate the discussion of rigor that follows. In my view, both the technical side of rigor in relation to educational action research and the spirit of rigor introduced in this chapter are important. The specific constructs and techniques associated with rigorous action research are discussed abundantly in other sources. However, much less attention has been

paid to the rigor associated with the larger context of opposition and resistance within which most educational action research exists today. Overwhelmingly, the knowledge produced and mobilized through traditional research is what the committees of Congress and other constituents of the education systems that impact educational policy value, and this is not likely to change any time soon. On the contrary, the direction of knowledge mobilization and application in education set within the past 15 years likely will further marginalize the place of educational action research, as we see in the creation of the Institute of Education Sciences (IES) within the US Department of Education and the ratcheting up of a focus on traditional scientific rigor.

As an alternative, the educational action research community may be at a historical moment in which what is most needed is a determination to build an alternative infrastructure for knowledge about education based on knowledge democracy. In my view, it is essential that knowledge mobilization based on democratized knowledge production pushes back against the "cadre of PhD-level researchers" (Harris, 2016, p. 1) now trained and eagerly pushing the agenda of a narrowly defined and evidence-based practice in education. Based on the new cadre's work "sending the message that rigor matters and expanding the capacity to produce research meeting those rigorous standards, the federal government has created a steady pipeline of … research" (p. 1). As has become abundantly clear in the aggregate, this pipeline is filled with the kinds of research that reinforce the gap between research and practice and marginalize the other ways of knowing associated with everyday classroom inquiry (Beck, 2017). Educational action researchers would do well to acknowledge explicitly the challenge that democratically produced knowledge makes to the hegemonic position of well-branded notions of "what works" and the dictum of "evidence-based practice." In this light, approaches to knowledge production and dissemination in educational action research are best seen, it seems to me, in the context of strategies for an alternative knowledge mobilization.

Here, I believe that the primary focus of the rigor needs to be on the effort needed to build knowledge democracies on a variety of scales and to establish viable networks linking knowledge democracies at local, regional, national, and international levels. This is the obstinate rigor referenced by Allende (2004) – a rigor rooted in strong will and determination that can turn to the technical dimensions of rigor in traditional research paradigms when it is relevant but otherwise draws on reflection, dialogue, and critical analysis as its guiding star. This rigor emanates from our refusal to be marginalized and our determination to accept, respect, and engage with the diversity of knowledges associated with educational practice. If the stacked-deck system of official educational research has gone *all in* on an orientation toward knowledge production which contributes to undermining both the professional judgment of teachers (Biesta, 2007; Sagor, 2000) and the necessary frames of reference for understanding education in a democratic society (Biesta, 2007, 2012), then the role of the educational action research community should be to oppose that orientation and offer an alternative. To examine this kind of rigor, I turn to both theory and practical evidence in relation to a sampling of democratized knowledge initiatives in the United States over the past 25 years. Some of the initiatives examined are still

functioning after many years, some are history, and others are just developing. All fit the context of opposition and resistance I have articulated above. Although not all have identified themselves as knowledge democracies, they do contain essential ingredients for knowledge democracy.

Knowledge democracy is a concept that has grown out of transformations in the politics of knowledge production and dissemination, as well as the information technologies of our times (e.g. Marthoz, 2009; Raza & Murad, 2008; Rowell & Hong, 2017; Tandon, Singh, Clover, & Hall, 2016). The concept is rooted in earlier examinations of resistance to the monopolization of expert knowledge producers (Gaventa, 1991; Gaventa & Cornwall, 2009). According to Gaventa and Cornwall (2009), "the role of participatory action research is to enable people to empower themselves through the construction of their own knowledge, through a process of action and reflection" (p. 177). Thus, the democratization of knowledge production and the expansion of challenges to all forms of elitist domination are joined at the hip, so to speak. As Fals Borda and Rahman (1991) put it, the stimulation of what they called popular knowledge, that is, "knowledge existing as local or indigenous science and wisdom, to be advanced by the people's self-inquiry" can serve as a principal basis "for popular action for social and political change and for genuine progress in achieving equality and democracy" (p. 31).

A central recognition of the early discussions was the transformative power of knowledge democratization. A recent work has explored the state of public education and educational research in relation to knowledge monopoly as well as the prospects of knowledge democracy as a pathway toward breaking through the barriers imposed by this monopoly (Rowell & Hong, 2017). We see the workings of neoliberalism's views on education and the production of knowledge about education based on these views as a case of "epistemicide" (Santos, 2014), in which "educators working in the trenches have been marginalized in the creation of knowledge about educational practice" (Rowell & Hong, 2017, p. 73). We see developing knowledge about educational practice based on practice-based research evidence (PBRE) as a way to build knowledge democracy in education (pp. 74–79). In alignment with Gaventa (1991), we note that for educators "gaining control over knowledge and skills, normally considered to be the monopoly of the experts, is an empowering [process] that produces much more than just the information in question" (p. 124). We include some preliminary ideas regarding a strategic initiative for knowledge democracy as a response to Kincheloe's (2009) assertion that a "transformative politics of knowledge" (p. 119) is critical to decolonizing the education system from the swarms of corporate reformers and consultants who have imposed a "reign of error" (Ravitch, 2013, p. 1) on it. Such transformative politics of educational knowledge could stand in solidarity with projects of decolonization and other initiatives for "a reinvented sense of options for a better world" (Rowell, Bruce, et al., 2017b, p. 4).

In education, Gerald Pine (1933–2009) was a strong advocate for building knowledge democracies. Pine (2009) saw knowledge democracy as a much-needed alternative that could close "the artificial separation of knowledge from practice" (p. 26) in education. Pine saw hope in "collaborative, participatory, and democratic relationships between and among teachers, university faculty, students, and parents, who together build communities of inquiry that promote

the democratization of the knowledge-building process" (p. 26). The resulting infrastructure of knowledge production would be transformational in relation to both the individual experiences of participants and the culture of participating schools. Starting from his belief that educational research must be shaped from the questions and problems of the school, Pine's (2009) approach calls for organizing schools as centers of inquiry with action research and, in particular, collaborative action research at the center of systematic inquiry. The knowledge base for professional development in education would be continuously updated and expanded through practitioner research, and the knowledge produced from practice in schools would be the glue that holds together communities of inquiry.

Pine chose the concept of the Professional Development School (PDS) as "a comfortable and inviting home for creating a knowledge democracy" (2009, p. 159). In his view, a PDS is a community of equal partners "dedicated to the simultaneous improvement of education for all children and the professional preparation and development of educators through a broad K-16 agenda" (p. 160). Adopting the PDS approach would allow school districts to redirect and consolidate resources into a critical mass of teacher-leaders, university faculty, undergraduate and graduate interns across multiple educator-preparation programs, who would work in a collaborative environment at designated school sites within a district.

Here is where I believe the spirit of rigor at the center of this chapter is again invoked. Pine (2009) asserted that it is ultimately strong will and active imagination that are required to integrate research and practice. In other words, da Vinci's *obstinate rigor*, the attitude that sets aside laziness, that pays close attention to all details and does not accept sloppy methods and groundless conclusions, is needed to address the many challenges associated with the PDS as a knowledge democracy. In particular, the crucial disposition of collaboration requires close scrutiny. Pine asserted that while district and school-site efforts to improve staff communications, develop positive norms, and promote interpersonal goodwill are *necessary*, they are not *sufficient* for successful collaboration. While it is neither possible nor desirable to *control* what goes on in someone's mind, it is possible to establish social structures that help facilitate the adoption of particular dispositions by people participating in those structures. While a PDS, for example, cannot mandate collaboration in a real sense, it can be organized so that the disposition to collaborate and attend to rigor can be supported. Rigor can be applied in relation to assessing the creativity and flexibility of structures designed for the knowledge democracy and examining the extent to which evidence exists that institutional barriers have been removed and concrete steps have been taken to promote interdependence, reciprocity, and transparency. Each of these constructs can be operationalized in ways that ground them in knowledge democratization and foster honest and deep reflection in the service of furthering the development of the knowledge democracy.

The rigor needed for large-scale initiatives such as those discussed in Pine and in Part II in general is found in the spaces in-between mere enthusiasm and undisciplined idealism and determined, long-term critical activism. At present, discussions of the rigor required of such constructions can help temper the steel of determination and hone skills for managing expectations among those taking

up such initiatives. Two other initiatives merit consideration in this spirit. Richard Sagor (2000, 2010) has devoted many years to working with schools, school districts, and educational organizations on incorporating action research into school improvement efforts. Much of his educational action research involvement has come through consulting associated with the Institute for the Study of Inquiry in Education, which he founded in 1998 and directed until his recent retirement. During an earlier period, he developed his ideas on institutionalizing collaborative action research in schools and school districts through Project LEARN (the League of Educational Action Researchers in the Northwest), which he described as an "outreach service" (Sagor, 1992, p. 1) of Washington State University created to help local schools. Over time, more than 50 schools participated in the project's training program.

For Project LEARN, Sagor operationally defined *institutionalized collaborative action research* as "the process of regularly and collectively inquiring into the quality of one's work and then taking action informed by the results of those inquiries" (1992, p. 2). The Project favored the recruitment of a critical mass of participating teachers from each school involved (Sagor, 1991). Rigor in relation to the action research undertaken began with the careful and collaborative process of identifying problems of practice to be investigated and continued with the project's use of "critical friends" (p. 6) as a source of support for all stages of an investigation. The critical friends were "educators with research experience who volunteer to help project teachers by giving their independent viewpoints" (p. 7), rather than directing them.

By 2010, Sagor had begun to explicitly attach collaborative action research to the concept of professional learning communities (PLCs) in education, the concept also embraced by Rick DuFour (1947–2017). This seemed to be a natural progression in many respects, with PLC advocates pointing to the importance of inquiry as an intrinsic component of genuine professional development (e.g. Dufour & Eaker, 1998) and Sagor (2010) asserting that collaborative inquiry must be included for a PLC to be meaningful and sustainable. Initially, the concept of the PLC began to take shape in the 1980 and 1990s, building on earlier research on quality teaching and favorable workplace environments for teachers.[5] For Sagor (2010), PLC teams enriched a school once a culture of collaborative inquiry based on "habits of inquiry" (p. 5) had emerged. These habits include clarifying a shared vision of success, articulating theories of action, acting purposefully while collecting data, analyzing data collaboratively, and internalizing the collaborative analysis approach to team planning (pp. 5–6). Although not addressed this way in the PLC literature, rigor attached to the development of such habits certainly could include reflection and other forms of assessment related to the operations and tasks associated with each habit. This could be done by the PLC or in partnership with a collaborating university, provided the university was willing to work within the spirit of collaboration at the heart of the PLC.

PLC advocates have created an impressive web-based infrastructure supporting their work (see www.allthingsplc.info), with free downloads of a variety of tools for establishing a PLC and maintaining the culture of inquiry at the heart of the approach. At present, the "PLC locator" on the website indicates

that 167 schools in 34 states have adopted the PLC concept (see http://www. allthingsplc.info/plc-locator/us). With the United States having 13 000+ public school districts and 98 000+ public schools,[6] the PLC movement is certainly not a particularly prominent feature of the American educational landscape. Even advocates acknowledge that interest in professional learning communities has at times amounted to a mere whisper in educational research and policy communities and that without adequate support from district and state systems of education, the communities are difficult to sustain (see, e.g. http://www. allthingsplc.info/about/history-of-plc).

Yet, the impact of participation in PLCs can be transformative. The authors of a report on efforts to implement PLCs in a five-state region in the 1990s shared stories regarding their experiences (Chapman et al., 2000). The stories provide testimony of the willingness of participating teachers to try new approaches and take on additional responsibilities, even in the face of persistent and difficult challenges, for example, resistance when teachers felt their knowledge was not respected, and stresses associated with the incessant rolling out of new initiatives in education. Yet, despite these challenges, the reflections and insights of the report's authors indicate abundant enthusiasm, commitment of time, dedication to school improvement, courage, and determination to keep moving forward toward full development and implementation of the PLC model.

Such enthusiasm is not shared by all educators. In a harshly critical vein, O'Keefe (2012) rejected the PLC concept based on a larger disdain for what he called conformity and "fad chasing" (p. 58) in education. In his view, the research–practice gap *is* problematic, but he believes evidence of "rogue" (p. 58) professionalism on the part of the educational research community undermines teacher professionalism and contributes very little to acting constructively to close that gap. The rogue professionalism he criticizes includes a lack of a code of professional ethics among educational consultants, unclear standards for educational research design, and the lack of research community members' commitment to the very values of "professional learning community" that are preached to teachers. In his view, university researchers are even more likely than K-12 educators to value working in isolation and thus are suspect when it comes to their advocacy for the collaborative culture associated with the PLC. O'Keefe's public statement reflected sentiments often heard in teacher lounge talk and discouraged discourses among educators, namely the view that no one "outside" public education can really understand classroom practice or appreciate its challenges. Hostility and suspicion are easily bred in the absence of trust and the presence of hucksterism and the commodification of educational reform.

Such reservations extend beyond the PLC or PDS orientations and point to important conceptual and ideological challenges associated with building knowledge democracies in education. For example, Chambers and Balanoff (2009) address "intellectual imperialism in social science research" (p. 73) in relation to restrictions on the realization of genuine participatory research designs. In their view, inadequate and unfair distribution of research resources, including research infrastructure and community capacity building related to socially just participation, systematically marginalizes the potential for equitable relations among community-based co-researchers and university researchers and reinforces the

power and privilege of outside experts. Chambers and Balanoff examined this phenomenon in relation to participatory research in indigenous communities, but their challenge extends to all social domains in which action research is enacted in the context of a participatory frame of reference. In essence, they point to the problematic nature of participatory action research's location within a "larger sociopolitical and institutional topography … that does not provide the social conditions necessary for nurturing ideal modes of participation" (p. 78).

Kapoor and Jordan (2009) caution participatory action research (PAR) advocates to be mindful of the co-optation that harms the transformational potential of PAR, and Kincheloe (2009) calls for the opening of new forms of dialogue and "more informed modes of democratic inclusivity" (p. 112) as a part of a necessary "decolonization" of much of what now passes for democratic knowledge production. Kincheloe prescribes adoption of a "critical complexity epistemology" (p. 109) as a way to reground critical PAR, with this grounding challenging both our consciousness of social science and our deepest senses of what it means to know something. This is not just philosophical musing, and the rigor required to engage with the cognitive processes of reflection, deconstruction and reconstruction of experiences, and decolonization of attitudes toward knowledge and its production is *both* transformational and demanding.

In another cautionary note, Thiollent (2011) discussed concerns related to rigidifying action research and participatory action research into programs with pre-set political agendas. Similarly, Thiollent and Colette (2017) assert that care must be taken not to confuse action research "with a mere political or social mobilization technique" (p. 164). In the United States, this may be less of a problem because of the current lack of a robust popular education movement grounded in a participatory orientation through which large-scale social mobilizations supporting social justice are enacted.[7] The greater danger for nurturing authentic collaboration in educational transformation initiatives in the United States is the reliance on a corporatized consultants' industry, with school districts preferring to contract with gurus who align their work with fads and "monopolize the proposal of solutions on which their remuneration is, after all, based" (p. 164). This may be the context – as well as the spirit – in which O'Keefe (2012) offered his comments about PLCs.

The rigor associated with building knowledge democracies can take up these challenges in very specific ways but only when knowledge democracy initiatives make a conscious decision to enter the intellectual, interpersonal, and psychological spaces in which such challenges brew. For example, Kincheloe (2009) wished to see a more informed and robust dialogical inclusivity that would lead to a deeper understanding of PAR in relation to the currently given "corporatized knowledge" (p. 115) dominating virtually all social domains. The reconceptualization of rigor, in this context, requires being able to open spaces in which empirical science has potential to add value to efforts to improve life for the benefit of all *while* educational action researchers *also* continue to develop understandings of the synergies between knowledge production, education, and social action in relation to allying with marginalized and dispossessed social groups. That is, our challenge is to accept that a truly inclusive approach to producing knowledge in a more democratized manner requires us to work in a

conflict zone, namely an intellectual, social, and action-oriented space that opposes the dictates of traditional research without rejecting the entire fabric of scientific understanding. It is the rigor of consciousness-raising that is at stake, and the focus need not be on rejecting the very idea of empirical science (Kincheloe, 2009). Reclaiming PAR means avoiding the co-optive and hegemonic discourses of the academy, while continuing the work in larger communities with a stubborn insistence on restoring PAR's revolutionary potential as a "transformatory methodology for subaltern and otherwise marginalized populations aimed at bettering their social and political conditions" (Kapoor & Jordan, 2009, p. 5).

For some advocates of teacher-research, there is little evidence of challenging the dominant direction of educational reform which Ravitch has called the "reign of error" and which Giroux (2014) describes as "paralyzing pedagogies of memorization and rote learning tied to high-stakes testing in the service of creating a dumbed down and compliant work force" (p. 29). Ellen Meyers (2003; Meyers & Rust, 2000), a prominent figure in the organizing of teacher networks beginning in the 1980s, has promoted the use of classroom-based action research in the context of student achievement and standards, as defined by the larger education policymaking establishment. As she explained, "TNPI [Teachers Network Policy Institute] is bridging the gap among teachers, researchers, and policymakers by transforming teachers into researchers and policy influencers, and by engaging institutional researchers and policymakers in teachers' work" (2003, p. 32). Although this work often falls far short of the critical vigilance embodied in Kincheloe's work, it is hard to argue against the creation of strong educator networks that advance the teaching profession and call for ensuring that teachers' voices are brought to the table in educational decision-making. Classroom-based action research can contribute to a fairly profound counter to what Giroux (2014) calls a neoliberal *disimagination machine* that "spews out stories inculcating a disdain for community, public values, public life, and democracy itself" (p. 17). The experiences of teacher-researchers can become part of a larger alternative narrative regarding both what happens in classrooms when teachers work together with students and parents in a refusal to accept poisonous characterizations of disadvantaged groups and a rejuvenated sense of the promise of democracy in general. If the participation is authentic and truly inclusive, the work of teacher-researchers can rise above the false narratives of corporatized reforms and systematic teacher disempowerment.

Another significant teacher network initiative further illustrates the potential of such engagement with critical analysis. The Madison Metropolitan School District (MMSD) in Madison, Wisconsin, in partnership with the University of Wisconsin–Madison School of Education has operated a Classroom Action Research (CAR) program for 28 years (M. Klehr, personal correspondence, March 2018). When the program began in 2000, it was an "isolated learning opportunity" (Caro-Bruce, Klehr, Zeichner, & Sierra-Piedrahita, 2009, p. 104), although over time the initiative grew and evolved as a valued professional development opportunity in the district. According to Caro-Bruce et al., the program involved between 30 and 100 district educators each school year in the period 1991–2009 (p. 105). Currently, more than 700 studies can be found on the district website.[8] Nearly 600 studies were completed from 1991 to 2007 (Caro-Bruce, Flessner,

Klehr, & Zeichner, 2007, p. 111). Caro-Bruce et al. assert that the program's commitment to core principles has been crucial to its long-term success. These principles include voluntary participation by the district's educators, control of research questions and methods by teachers, the practitioner-researchers being treated as knowledgeable and knowledge-producing professionals, use of group meetings for support and collaboration, technical support for and from practitioner-researchers, the use of trained group facilitators who also receive regular support, shared findings, putting rigorous reflective practice at the heart of the program, and holding to a collaborative and democratic relationship with the university partner. These are the ingredients of a robust knowledge democracy.

Studies of the MMSD program found that, after a year of participation, teachers were "more likely to talk with colleagues in their schools about their teaching and that engaging in what they perceived to be authentic dialogue convinced them of the importance of collaborative work with other teachers" (Caro-Bruce et al., 2007, p. 114). This evidence shows that knowledge democracy initiatives in education require structures that facilitate rigorous collaboration. Flessner, Zeichner, and Eggington (2007) draw on the MMSD studies to illustrate how action research can be empowering in providing support for "equity pedagogy" (p. 280) and building "sociocultural consciousness" among educators (p. 281). Flessner et al. (2007) share a view of the integration of "practitioner-generated knowledge" (p. 293) arising out of practice and outsider-generated knowledge that contributes to seeing across specific practice settings. Unfortunately, with changing educational priorities in the state and hence the district, the initiative has fallen on hard times since 2007. The bulk of the district's staff development money has been eliminated and a dedicated budget for the program within the overall district budget is gone (Caro-Bruce et al., 2007, p. 108). It seems fair – but sad – to say that, although the MMSD action research initiative still exists, it is not nearly as much of a driving force within the district as it once was. Yet, the lessons learned from the MMSD initiative in relation to rigor in educational action research are significant and worthy of careful consideration as knowledge democracy efforts grow and evolve in the years to come.

Another initiative that builds on the power of such collaboration is the Social Publishers Foundation (SPF) (Rowell & Hong, 2017, pp. 77–78). SPF is a non-profit corporation organized for public and charitable purposes. The Foundation has been taking preliminary steps in establishing a global network of practitioner-researchers and action researchers committed to social and human development in education and other critical social domains (https://www.socialpublishersfoundation.org/about-us). SPF is a web-based initiative providing an electronic home for an extended community of practice in educational action research and practitioner research. Over the past 10–15 years, a number of initiatives have emerged which draw on the technology of the World Wide Web as a driver of efforts to establish knowledge democracies (Riel, 2010–2017). Still in an early stage of developing the knowledge base, the experience of SPF to date indicates that the key to rigor in relation to the projects uploaded to the website comes through the Foundation's mentoring process. Like the Madison CAR program and Project LEARN in Washington, collaboration is intensive. In SPF, this process involves volunteer reviewers/mentors from various parts of the world working in collaboration with

practitioner-researchers through email correspondence. The mentoring begins with the first contact from someone interested in publishing her or his work and continues through to project completion and publication.

Several of the new virtual space initiatives are grounded in intentions associated with knowledge democracy, and as the knowledge bases grow so do opportunities for rigorous comparisons and collaborations across home bases. An example of a step in this direction is described by Piggot-Irvine and Zornes (2016). An international research team working on an evaluative study of 100+ action research projects in several domains, including education (Piggot-Irvine, Rowe, & Ferkins, 2015), developed a new research evaluation framework, which they have named the Evaluative Action Research (EvAR) framework (Piggot-Irvine & Zornes, 2016). The future use of this framework likely will elevate discussions of rigor in action research as well as generate critical dialogue regarding assessing action research outcomes across diverse social domains.

6.4   Summary

Why is it that action researchers were not more visible in the debates introduced at the beginning of this chapter? Is it simply a matter of choosing to work outside the dominant culture of inquiry in education research? Does educational action research wish to claim space within that broader culture, or is it necessary and sufficient at this time to stay focused, in a perhaps obstinate manner, on our work as an oppositional force within a zone of cultural, intellectual, sociopolitical, and ideological conflict? Clearly, the educational action research community asserts its voice in multiple ways, including its own journals, websites, conferences, and networks. Perhaps it does not need to be more visible in the halls of the hegemonic institutions and enterprises of educational research to continue to have an impact.

At the recent March for Science in San Diego, one of hundreds of such marches held around the world on April 22, 2017, two signs grabbed my attention as interesting statements relevant to the issue of rigor in action research. The first sign – "The attack on science is so … 12th Century" – is a clever rejoinder to the science-denier forces that have been building up a head of steam over the past several years (Rowell, 2018). The second sign – "Got a Question? Ask a scientist – we know more" – is actually part of the reason the anti-science forces have gained traction. There is an arrogance in the scientific community at times that does not sit well with the larger population. While not wanting in any way to be identified as anti-science, the educational action research community must maintain its stance in opposition to the arrogance of colonized knowledge and colonizing educational practices.

Ultimately, the full inclusion of educational action research as an equal partner in the production of knowledge in education will only come when educator preparation programs, educational policymakers, and school district and school site administrators provide explicit recognition that different types of knowledge are essential in formulating wise policy and that practice in education should be guided by knowledge drawn from an integrated framework of practice wisdom,

practice-based research evidence, and evidence-based practice in which each component of the framework is shown respect. Creating the professional development and research-informed practice frameworks based on this integration is the best way to move past the current divided state of research and practice and to create a broad-based movement for building knowledge democracy in education. Although, as readers can imagine, the needed integration is most likely a long ways away, this realization need not deter us from working with determined rigor to achieve it.

6.5 Conclusion

Nearly a decade ago, Stephen Kemmis (2010) asked "what's to be done?" in relation to the place of action research in responding to the challenges of the twenty-first century. Kemmis posed this question mindful that it was a historical refrain from another time of wrenching change. He asserted that it was time for action research to "move on from the impasse of justifying itself as 'research' on the model of the empirical-analytical sciences that aims to produce new ('external') knowledge" (p. 425). Kemmis believes that when action researchers seek to justify action research in the context of traditional scientific knowledge, our attention is diverted away from what truly matters in relation to action research, namely making a direct contribution to transformative action in a particular place and time and changing history, thus, "the first concern of action researchers should be the contribution of their action to history, not so much to theory" (p. 425). In general, furthermore, every historical period raises new challenges and concerns, and the issue of "what is to be done" always carries with it a strong dose of uncertainty, potential for conflict, and possibilities for 0transformations. Although the ways of doing things, thinking about things, and relating to one another differ around the world, the richness of this diversity adds to our capacity to make sense of things and take action accordingly (Bruce & Rowell, 2017).

   The current conservative regime, which permeates and constricts our lives so fully, has resulted in a turn toward a kind of colonized action research in which technical problem-solving too often overshadows issues of social justice and equity (Feldman, 2017, p. 141). Yet, as we see in the works examined in this chapter, the spirit of rigor in action research is readily available for reactivation in consciousness. Without a doubt, an action research and participatory action research stance existing in conflict with the still favored hegemonic social constructions of neoliberal knowledge production and dissemination presents many challenges. There is the sense of being called in this historic moment to what Anderson (2017) referred to as "democratic disruption" (p. 432). Perhaps what is to be done is to continue producing knowledge through participatory frameworks that bears witness to the "violence of organized forgetting" (Giroux, 2014). Perhaps, the rigorous spirit of action research will guide us in finding new ways of practice in education that better provide for the learning of each student, the good of humankind, and the prospects for healthy communities and sustainable life on this planet.

Notes

1 Readers can find a useful PowerPoint on rigor through slideshare: https://www.slideshare.net/DrJenniferLoke/rigour-robustness-in-research-16-april-2015.
2 Retrieved August 9, 2018, from https://nces.ed.gov/fastfacts/display.asp?id=84. The number of schools represents the 2013–2014 school year.
3 Retrieved August 9, 2018, from https://nces.ed.gov/programs/digest/d12/tables/dt12_098.asp. Figure available for 2010–2011 school year.
4 The now elder spokespersons for much of the leading work done in education research over the past 50+ years reflect on the directions taken, and not taken, in an excellent project undertaken by Arizona State University. A series of videotaped interviews with leading figures have captured their memories of their earlier years in higher education as well as their thoughts on where things are headed today. A good resource for all future education researchers, the entire series is found at http://insidetheacademy.asu.edu.
5 See, for example, http://www.allthingsplc.info/about/history-of-plc.
6 Retrieved August 9, 2018, from https://nces.ed.gov/fastfacts/display.asp?id=84.
7 It is worth noting that this condition may be changing. If the current emergence of popular movements such as "Me Too" and "March for our Lives," along with the gathering wave of teacher strikes and protests, persists there may be convergences between the desire to maintain the momentum of these mobilizations and the need for participatory reflection and critical analysis in relation to strategy and leadership development. In other words, the mobilizations themselves may generate interest in democratized knowledge that can serve the movements.
8 Retrieved August 9, 2018, from http://oldweb.madison.k12.wi.us/sod/car/search.cgi.

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7

Theory in Educational Action Research
Ernest (Ernie) Stringer

7.1   Introduction

Action research is sometimes considered atheoretical, focusing as it does on a pragmatic orientation to action. This chapter, however, describes how theory plays an essential part in action research, though the place of theory differs from its orientation within quantitative (experimental and quasi-experimental) research. The chapter first situates action research within the different research paradigms common in the field, then articulates the different ways that theory sits within each. The purpose of the chapter is to clarify the different ways that theory sits within action research, varying according to the particular orientation of any project. As should become clear, action research is an approach to investigation that seeks to engage the ongoing dynamic nature of human social life, using theory in a somewhat different way than approaches to research associated with the relatively fixed systems of the physical world commonly applied to educational research.

   Theory may be defined broadly as a system of ideas that explain events. In professional and academic contexts, this definition may be further delineated as a coherent group of tested propositions that guide explanation and understanding. As will emerge, the definition of theory itself is subject to wide variation of interpretation, according to the philosophical positioning of the person/s defining the term. Since this chapter derives from my history of experience as teacher, educator, and researcher, I shall start autobiographically in order to situate my discussion in real-life situations that illuminate the part theory plays in action research.

> I was raised in a small city in Western Australia and, as a young primary school teacher with three years classroom experience, was posted to a small school in the Western Australian desert where all of the students were Aboriginal, most of them living a classically hunter-gatherer lifestyle, with

English as a second language learned when they attended school. The experience was both enjoyable and dramatically enlightening as I engaged in the processes of teaching these delightfully energetic and personable children. After two years, however, I left the school feeling both concerned and puzzled, for it was clear that the education I provided the children was both inappropriate and woefully inadequate. In the following years, I set about re-educating myself with the intent of exploring the multitude of questions that came to me from this experience, and finding better and more effective ways of educating children from these types of environment.

As I was to discover, this quest was not only relevant to Aboriginal children in Australia, but also pertinent to issues of cultural diversity in Britain where I taught for a year, and the USA where I worked in universities, schools and communities for an extended period. In all contexts, education authorities sought answers to a similar question – how can we provide better educational outcomes for students from poor and culturally diverse populations? I enrolled in a second undergraduate program in education, where I became acquainted with *experimental research*. This approach to investigation excited me considerably, providing a rigorous and systematic process for determining the factors influencing student learning. These types of studies provided me with a great deal of well-established information that enabled me to understand many of the factors that affect classroom learning. Small-scale experimental studies were able to account, for instance, for the varying degrees of influence of intelligence, motivation, locus-of-achievement, and a host of other variables on academic achievement.

Over time, however, as my knowledge increased, it became apparent that classroom experiments were limited in their capacity to provide explanations for poor student performance. Student learning, I discovered from my reading of the research literature, was not only determined by what happened in the classroom, but also effected by a multitude of variables that were impossible control experimentally – school leadership, resources, teacher capacities, as well as out-of-school variables such as siblings, peers, parents, community, policies, socio-economic status, gender, race, ethnicity, and so on.

My coursework at the time led me to *quasi-experimental research*, where researchers were able, through statistical procedures, to determine the degree of relationship between these complex sets of variables. To my surprise, I discovered that a number of large and influential studies of this type revealed that in-school variables seemed to account for a relatively small proportion of variance associated with student learning outcomes. Nevertheless, this approach to research, solidly grounded in clearly defined and statistically verified terms, appeared to provide solid ground from which to identify the processes or procedures by which student learning could be improved. By accumulating the knowledge provided by these diverse research projects, it seemed to me, we could acquire a body of information that would lead to more effective educational procedures and practices.

7.2   Research Methods

The main point to take from the above story relates to the purpose of research, which is to systematically investigate an issue or problem with the aim of providing an explanation for problematic phenomena. The general research question, "Why is it so?" initiates a carefully defined set of procedures – or, methods – that enables researchers to understand more clearly the nature of the problematic issue. In simple terms, the explanation provides an understanding of the cause or causes of the problem investigated.

The research procedures noted above – experimental and quasi-experimental research – are key features of modern approaches to knowledge production. Based on procedures that first reduce the problem into its component parts – or "variables" – they seek to define a relationship between those parts that explains the nature of the problem, carefully and artfully measure the parts, and mathematically determine the relationship between them. Relationships between the parts (or more technically, the variables) are often described in correlational terms, so that not only does one variable have an effect on another, but the degree of relationship can also be determined.

Careful experimentation has enabled physicists to build a highly reliable body of knowledge about the nature of the physical universe, enabling humanity to build machinery, habitats, and services that in past eras would have been considered miraculous, or attributed to the work of "gods." Ships, planes, trains, cars, rockets, electronic goods, material comforts, health systems, transport, communication, production systems, and so on, have been derived from the ability of humanity to control the physical environment through the application of knowledge derived from experimental research.

So successful have experimental methods been in enabling people to both predict and, therefore, control aspects of the physical environment that the same methods have been applied to the behavioral and social lives of people. Insofar as we are physical beings, these methods of investigation have been remarkably successful, enabling especially huge improvements in people's health, so that life expectancies continue to climb and treatments for injury, sickness, and disease ease the suffering of all those able to afford the associated costs. In education, there is now a significant body of knowledge about the impact of education on people's lives, the organization of educational processes, and the processes of teaching and learning that provides the basis for educating the mass of the population.

There are limits to the type of knowledge gained through these processes, however, and human societies are now beleaguered by a host of problems that continue to threaten the well-being of the people and the operation of ordered, sustainable, and harmonious societies. Social research continues to point to an increasing divide between the rich and poor, a precursor to social divisiveness and ultimately increases in violence at local, regional, and national levels followed by social breakdown. In these circumstances, it becomes increasingly important to provide the basis for people to maintain and improve the quality of their lives. Since education is cited as a key ingredient to this process, the need to provide all people with the level of education that will enable them to live productive and harmonious lives becomes increasingly urgent.

Despite significant and continuing investment in education and associated research, however, large problems remain. A vast body of research in educational contexts and systems around the world seems to have had little impact on the issue of "closing the gap" in education achievement between students of different social classes and ethnicity. A study in the United States by Sarason (1990) indicated that, despite huge investments and many projects, programs, and policies focused on this issue over a period of 20 years, little progress had been made. He attributed this lack of progress to the inability of educational systems to think past established practices of organization, curriculum, and pedagogy, indicating that, "What is called reform is based on acceptance of the system as it is and has been." This theme also emerged in a more recent study by Cole (2010), who points out that reform is largely restricted to improvements within current systems and structures that emerged in the past, suggesting the need to change the culture of the classroom on general pedagogical principles.

> To return to my own journey, quantitative research in the form of experimental and quasi-experimental studies provided me with access to an immense and sometimes overwhelming body of literature about the nature of classroom teaching and learning processes, the impact of student physical, mental, and emotional capacities, the effects of classroom and school environment, school organization, and leadership, and so on. Throughout my second undergraduate program and into graduate studies, I devoured this literature voraciously, sure that it would lead me to the "holy grail" of a pedagogy that would have a positive impact on the education of students from all walks of life. This was a time when special programs for children from lower socio-economic and racially and culturally "deprived" environments proliferated, with a consequent increasing focus on research that would identify the pedagogical means to overcome the environmental "deficits" of home and community.
>
> The information available and levels of understanding of the complex web of influences of student learning I found very exciting at the time, but the research continued to indicate that the special programs derived from this research base had little impact or, where successful, failed to sustain gains made over time. So, the questions I asked became broader: "What is going on here? Why are these specially designed programs, based on the best theories available, not working?"
>
> Two elements are significant here. The first element was the nature of the research on which these programs were based, almost all of them focusing on specific pedagogical methodologies, and on attempts to increase cognitive and literacy development based on cause–effect orientations to learning – i.e. focusing on the "deficits" in the environment that "caused" deficits in cognitive development and the fashioning of pedagogical procedures that would overcome or "compensate" for them, thus "compensatory" education. Much of this did not sit well with me, since my mind always went back to my experience with Aboriginal students who, by standard measures of the time, were on the lowest levels of academic achievement (and, therefore, of cognitive development) in Australia. My

experience of these students was that they were delightfully lively and, in their own bushland environment, amazingly skillful and knowledgeable, providing me with an ongoing education about the complex intricacies of the environment and the means of living in what was, to me, a hostile world. "'Cognitive deficit' just did not fit at all!"

What was at question here were the very theories upon which the majority of research had been based. Although providing a whole body of useful general information, it soon became evident to me that the very theories and conceptual apparatuses involved did not provide the means for obtaining information about realities that did not fit mainstream visions of the world. So, my questions became different: "Why or how is this so? Why aren't the solutions based on meticulous research leading to positive outcomes? What is happening in the classrooms and schools that seem to overcome the best attempts of researchers and educators to improve the situation? How can we frame the research so it takes into account the realities of the educational and social contexts in which I had worked?"

It was at this time, during my graduate education, that I became introduced to *qualitative research*, an approach to investigation based on decidedly different principles of inquiry. Classes in anthropology and anthropology in education also opened a whole new world of understanding that linked concepts like education, cognitive development, and literacy to concepts like culture, worldview, and emic/etic (insider/outsider) that required the use of more interpretive approaches to inquiry. Qualitative research introduced me to this different set of research procedures, but also to the necessity to incorporate much broader definitions of what constitutes "education" and the different set of theoretical perspectives that might productively be brought into the research arena. I was to discover that education was not just something that happened in the classroom, but that classrooms themselves were cultural productions largely defined and limited by the experiences and perspectives of the people who controlled them and the politics that were embedded at all levels of the school systems. The theoretical grounding of much educational research, it now appeared, was not in the invariant operations of educational systems, but in the socially located power relationships between actors in each setting.

7.3   Understanding the Complexity of Human Behavior

To summarize our exploration thus far, modern science has for some hundreds of years been built on the basis of research that tests and verifies explanations of the phenomena of the physical universe. Explanations derived from experimental research provide a stable and invariant account of how and why things are as they are. The laws of physical science are based on this invariance, so that the relationship between the pressure and temperature of a gas will always be the same, particular metals will melt at a specific temperature, providing conditions are equivalent, and so on. The human sciences, likewise, have used these as a

means for accumulating a large body of information relevant to human conduct – why people act or respond the way they do.

As the narrative above reveals, however, there are limits to the efficacy of information obtained in this way. The physical sciences, except perhaps more latterly in the field of quantum physics, are based on a fixed, stable universe that can be apprehended and understood by a system of reductionism – breaking down phenomena into their component parts in order to obtain measurements that enable us to establish the relationships between those component parts. This procedure, however, isolates and clarifies but one small aspect of any social interaction. In statistical terms, they produce information that rarely accounts for anything more than a tiny proportion of the variance in human responses in any setting.

In past years, it was assumed that the knowledge emanating from experimental research could immediately be incorporated into school contexts in order to achieve outcomes indicated by the research. As has become evident, this is rarely the case, as a host of other variables intervene, so that any classroom or school "intervention" needs to take into account a host of other variables nested in the setting. The equations of everyday life in any school or classroom are multiple and complex! Schools are not only affected by the long-term, taken-for-granted, and commonly accepted operations and practices of schooling, but also by the myriad sets of beliefs, attitudes, values, personal traits, and cultural mores implicit in the lives of students, teachers, administrators, parents, and others who affect or are affected by these dynamics.

As we seek to understand what happens in classrooms and schools, therefore, quite a different form of research is required in order to understand the conduct of adults and children in the setting. Social research has demonstrated conclusively that human action is not only predicated on the characteristics and qualities of the individuals concerned, but also on the life-worlds they inhabit. These life-worlds derive from a history of experience that imbues them with distinctive ways of seeing the world and acting within it. Even when speaking the same language, diverse groups of people often have different ways of defining and interpreting the meaning and implications of activities, events, or actions. In sum, therefore, we might think of classrooms and schools as a cultural context requiring approaches to research that include analyses incorporating the diverse home and community cultures that walk into the school each morning with the students.

Where experimental research seeks to reduce human conduct to a set of fixed propositions that can be measured and interpreted statistically, researchers need to take into account the other "propositions" or systems of ideas and meaning that are inherent in the context. These are not the type of propositions that may be tested in the carefully articulated processes of experimental research, but the knowledge inherent in the life-world of individuals and groups, accumulated and "tested" by them over many years as they grow and live within their own social and cultural groups. When we seek understanding of any of the processes of schooling and education, therefore, we need to take into account the wide diversity of perspective and experience inherent in the situation. We need to understand, in other words, the "theories" – or, systems of ideas – that give meaning

and purpose to people's lives, understandings that enable them to navigate the complexities of interaction in everyday social life.

Technically, these may be defined as phenomenological theories embedded in the everyday lives of interacting individuals. These systems of meaning are not only rationally explicit statements that can be shared intellectually, but also incorporate socially autonomic aspects of human behavior. These subconscious aspects of human conduct are deeply imbued with emotionality, insofar as people are emotionally attached to their own ways of behaving and understanding – of being and doing. People are not machines and do not act mechanistically, and one of the ongoing features of modern organizational life is to organize actions, behaviors, practices, and events in ways that accommodate this diversity.

One of the purposes of modern schooling, however, is to socialize students to enable them to participate in the socially and culturally ordered and productive activities of the broader society. Herein lies one of the basic paradoxes and problematics of education – how to affirm students in the value of their families and other social groups with whom they are affiliated, and yet imbue them with the knowledge, behaviors, and values that lead to an ordered and harmonious participation in activities, and events that run contrary to their own worldviews.

At the basis of this process is the need for those who participate in schools to understand the world of the "the other" people whose lives are driven by quite different sets of meaning, understanding, and emotionalities. The basis for qualitative research, therefore, differs strategically from experimental research. Rather than producing a fixed set of outcomes focused on explanation and control, qualitative research sets out to develop descriptions of the social world that provide an understanding of the social and cultural dynamics inherent in the research setting. The emphasis is an understanding that focuses on "why" and "how" things happen, not from a deterministic perspective, but from the perspective of the actors in the setting. Not to deterministically define actions to be taken according to the outcomes of research, but to find ways of accommodating those outcomes within the complex dynamics of real-life social interactions.

> My journey through the terrain of qualitative research was an extended one, the complexities of the literature sometimes threatening to deconstruct my attempts at understanding the full implications of the theoretical discourses of the time. Despite the abstruse complexity of much of this literature, postmodern, feminist, and critical research provided concepts and theories I found hugely enlightening, contributing much to my quest for understanding the problems and paradoxes involved in educating students from socially and culturally diverse social groups.
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> It became increasingly evident that the basis for the problems lay not in the qualities and characteristics of the students, but in the deeply embedded culture of education permeating most modern education systems. Postmodern writers of the time suggested that knowledge could no longer be accepted as an objective set of testable truths because it was produced by processes that were inherently "captured" by the social world it sought to explain. Researchers, they suggested, as products of particular historical and cultural experience, formulate explanations of

the social world that derive from their own history-of-experience, and, hence, tend to validate their own perceptual universes. This analysis seemed revelatory to me at the time, since the institution of education in modern social life is deeply embedded with rules and routines of organization and operation of schools that have become apprehended as the only way things can operate.

As I viewed the implications of this through the lens of my experience with Aboriginal students, I understood more clearly that their school lives were dominated by people who had very little understanding of their life-world and who instituted pedagogical practices that often ran contrary to their cultural values, perceptions, and mores.

These forms of analysis required quite a new way for me to think about the implications for schooling for groups of students who differed from mainstream norms because of their race, ethnicity, class, gender, and so on. Where most programs focused on issues of "closing the gap" by providing special interventions designed to enable culturally diverse groups to fit more equitably into existing systems of schooling, my focus became quite different. "What would it take," I asked, "for schooling to be formulated in ways that fit the life-worlds of the students?" Further, "How could the very operations of school life be changed to accomplish this task?"

The impact of these questions essentially changed my orientation to research and processes of theorizing still viewed warily by those responsible for running systems of schooling that is still locked into a set of standard practices that have their roots in the dame schools of the nineteenth century. Though crudely effective in providing a basic education to large masses of the population, their very robustness and fixed-state organizational procedures and practices inhibit their ability to provide a robust, creative, and effective education for students who sit on the margins of the bell curve that comprises the statistical basis for current operations.

7.4   Theory in Educational Action Research

One of the problems in discussing educational theory is the large diversity within and between school systems. Some schools run smoothly and effectively, providing a rich and robust education for their students, while others are almost overwhelmed by problems – lack of resources, poorly trained teachers, low teacher salaries, students from contexts of poverty and deprivation, and so on. Where things are going well, then action research processes may be directed to relatively minor issues to increase the quality of education or the well-being of the students. More problematic contexts, however, will require deep-seated investigations that bring into play the wide range of issues needing to be addressed, with the possibility of quite radical changes needed to make effective progress. In these cases, there is probably no objective way of determining processes of intervention or remediation simply by focusing narrowly on issues like pedagogical

processes or behavior management. Using standard definitions of the situation deeply embedded in the perspectives of educational professionals is unlikely to provide an endurable and effective solution to problems.

This is especially true when the perspectives of educational professionals – teachers, administrators, curriculum designers, and so on – focus their knowledge base on generalizable theories derived from the research literature. Michel Foucault's (1972) extensive investigations into social and organizational life suggest why this might be so. He proposes there can be no objective truth because of the way in which knowledge is produced and power exercised in modern institutional life. This led him to conclude that there is an intimate relationship between the systems of knowledge – discourses, in his terms – by which people arrange their lives and the techniques and practices through which social control and domination are exercised in local contexts. Though people work with the best of intent, he further asserts, they often act oppressively, not because of any intent to do so, but because of the normally accepted procedures, routines, and practices through which people enact their daily institutional and personal lives.

In Foucault's terms, therefore, the discourses of schooling and education are dominated by professional elites that define the language and conceptual structures built into the organization and operation of school systems. Individual members of this elite exert control by contributing to the framing and maintenance of ordinary, commonly accepted organizational and operational practices that are often enshrined in administrative procedures, bureaucratic mandates, and government regulation. Professional acceptance, employment, promotion, funding, and other forms of recognition embed these practices ever more deeply by providing rewards for those who work within the systems as they currently operate.

Where educational theory is encompassed largely by issues related to pedagogical and organizational practices within systems as they currently operate, the implications of Foucault's work is that there is a need to discover ways of reformulating the systems and the theories implicit in their operation in order to provide a more effective solution to deeply embedded educational problems. It reflects the suggestion of Sarason and Cole to formulate research on basic pedagogical principles that go outside the frames of current theory and practice, where issues such as improvements in literacy are framed in technical, pedagogical terms and the deeper issues related to literacy are rarely recognized.

Historically, many major theorists recognize the social, cultural, and physical context that need to be taken into account by those seeking to understand student cognitive development, with clear implications for literacy development. Piaget acknowledged the role played by culture in cognitive development (Piaget 1960), while Bandura (1977), Bronfenbrenner (1979, 2005), Bruner (1966), and Vygotsky (1934/1986) focused their attention on students' social and cultural contexts that need to be taken into account in articulating explanations about behavior and performance. The work of these giants in the field continues to provide the basis for an ever-expanding body of research linking cognitive and literacy development to features of the sociocultural environment.

A starting place for this type of thinking might be to return to some major theories in education tending to focus on those attributes or variables considered

to affect educational performance, famously articulated by Bloom, his colleagues, and others who extended their work (Bloom, Engelhart, Furst, Hill, and Krathwohl, 1956/1984; Krathwohl, Bloom, & Masai, 1964; Harrow, 1972). Their taxonomies are organized according to three major attributes affecting human behavior: cognitive, affective, and psychomotor, while others have extended or modified their work. Gardner (1993) and Marzano and Kendall (2007), for example, have suggested alternative formulations extending the variety of attributes that need to be taken into account when attempting to explain variation in student performance. These types of theory tend to focus on individual attributes associated with human performance and behavior, often failing to take into account the impact of the sociocultural environment, except in descriptions of socio-economic data that tends to focus on the material aspects of family and community life, such as employment, income, housing, and so on.

The problem here is that social and cultural factors do not lend themselves to the types of fixed-system, generalizable approaches to teaching and learning that fit students with a diversity of history, experience, and perspective common in modern societies. To frame any set of practices as "Aboriginal" in Australia, "African American" in the United States, or "Indian" in Britain, for instance, is to encompass people whose range of experiences, cultural orientation, and/or socio-economic status is a prohibitive project. The solution to this is relatively simple: to modify and adapt curriculum, objectives, content, and learning activities to the local context through the processes of inquiry inherent in action research. This not only opens up the rich resources extant in even the poorest communities, but implicitly reinforces the dignity and worth of families and individuals involved. The same can be accomplished through processes of inquiry generated at the level of local, regional, or state systems, where the development of programs, policies, and services can incorporate approaches to schooling that are not only educationally sound, but that also valorize the culture, accomplishments, and worth of people in their local settings (Stringer, 2008).

7.5   Theory and Ethics

As indicated above, most theorizing in educational research is done by experts or educational professionals who have an extended understanding of the many factors and issues involved in the processes of education. This provides them with a vast array of information that informs their investigations into educational issues and provides a substantive basis for understanding the dynamics and issues involved. The problem here, however, occurs when researchers are involved in investigations related to social and cultural groups of whom they have limited experience. In these cases, there is a danger that they will fail either to understand or to acknowledge the sociocultural realities and dynamics of the setting and frame them in ways that "make sense" from their own perspective. Similarly, it is likely that they present issues in terms that run contrary to the experience and perspective of those who are the subjects of study, or have little understanding of the social and cultural precursors to the events they observe. Research that

focuses on cultural or social deficits, for instance, often highlights negative aspects of a social context and fails to acknowledge the rich and (positive) features that are an integral part of the environment.

Cultural perspective, therefore, has the potential to distort the reality of those who are subject of study, as researchers virtually colonize the world of their subjects by interpreting events and issues from the perspective of their own worldview. In misrepresenting, misinterpreting, or distorting the social world they seek to describe, they risk harming those who they study. History abounds with examples of the tragedies occurring when well-meaning people have imposed their own definitions of the situation on the lives of Indigenous, poor, migrant, or otherwise marginalized groups. Recent literature has revealed the damage done and the pain inflicted on people when children were needlessly removed by authorities from their families "for their own good."

As researchers, therefore, the ethical imperative of safety or "no harm" becomes a predominant focus of activity, not just at the individual level, but also at the level of the social groups. How, researchers must ask, can we understand the context from the perspective of the people who populate our studies? How can we conceptualize the context in ways that do not distort, demean, or disrupt the lives of the people involved? The theories, both implicit and explicit, imbued in the research process must themselves become consciously critiqued and assertions within reports subject to verification. The simplest way of accomplishing this is to include members of subject groups in the research process itself, part of their duties being to check the ethical qualities of the research.

7.6 Theory and the Politics of Practice

A continuing issue in the development of more sophisticated and informative research is the extent to which education has become increasingly politicized. While this has always been an inherent feature of educational life, the particularly divisive nature of modern political life has meant that informed debate has been superseded by party-political dogma grounded in superficial understanding of the realities of schooling and the denial of a well-established knowledge base. The emphasis on national tests of literacy and numeracy that has bedeviled the educational context internationally is but one aspect of the degree to which education has become the plaything of often poorly informed politicians, aided and abetted by those whose careers depend on applying the analyses of their political masters.

In these circumstances, there would seem to be limited opportunity to engage in more rigorous and authentic approaches to educational inquiry, though the use of a truly rigorous approach to action research often opens up spaces for more authentic developmental processes. Action research often reveals the often-unstated belief systems inherent in the context and finds ways to more effectively negotiate a more informed basis for decision-making. In these cases, professional theories grounded in rigorous research may illuminate situations where taken-for-granted stakeholder theories are in conflict with more rigorously established information. According to the nature of the issues under investigation, processes

of information gathering and analysis may apply to school- or local-level issues, but may also require action at regional, state, or national levels.

In a sense, action research is always political, since it is enacted in social contexts based on systems that result from actors with quite different worldviews, values, affiliations, and so on. Where schools and other educational contexts act according to authoritarian or fixed systems, based on "common sense" approaches to schooling, they limit the possibility of finding effective and sustainable solutions to deeply embedded problems. Effective action research requires theorizing that emerges from the needs and political parameters of the setting, rather than seeking instantaneous solutions based on "silver bullet" or "spray on" responses to issues deeply embedded in the sociocultural context. The answer to problems of the over-politicization of education may lay in the long-term politics of participatory processes of inquiry at every level of the education system that result in a better-informed public and more rational approaches to the development of education systems.

> To continue the account of my own research journey, the issues elaborated above continued to trouble me as I extended my work within the university into the early 1980s, teaching classes related to Indigenous and migrant populations, where cultural diversity was an inherent part of the program. Not only was much of the relevant literature quite theoretical, it tended to discuss issues and problems, while failing to provide practical or sustainable solutions to the issues. Theories of race, ethnicity, equity, and cultural diversity were discussed extensively, though pragmatic solutions to the problems of classroom and school life were superficial and minimal. Where research and its accompanying theories were supposed to provide the means to more easily understand the nature of the problems, attempts to envisage solutions to problems related to diversity seemed to increase the complexity of the situation.
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> Two experiences occurred in the 1980s that changed my perspective dramatically. For two years in 1982–1983, my wife and I were involved in a program to teach Aboriginal people national and state voting procedures. The need arose because Aboriginal people had been excluded from the right to vote in Australian elections until very recent historical times. Even when they gained the right to vote, many Aboriginal people were wary of participating in unfamiliar voting procedures totally dominated by non-Aboriginal people. My wife and I spent two years presenting an educational program that would provide diverse groups of Aboriginal people with an understanding of the political system and voting procedures that were an inherent feature of elections. We discovered the need to start with very practical matters related to the voting procedures, first describing the process, then having people practice them through a mock election. We learned to scaffold information onto these activities, increasing people's understanding of the immediate purpose of their actions – increasing people's understanding of the immediate purpose of their actions – electing a local member of parliament – describing how parliament enacted laws that would affect their lives, and how voting provided them with the

ability to have an effect on those laws by having some "speak" for them in parliament. Throughout this experience, we learned to start with practical activities relevant to people's lives, building knowledge and skills by ensuring that we made the information directly relevant to their experience.

In the years following this experience, I was asked by a small group of Aboriginal activists to assist them to set up a Centre for Aboriginal Studies in my university. For the following years, I worked in partnership with them to discover ways to engage the university administration and to develop the activities of the Centre, focusing on the three planks of university operation – teaching, research, and community service. At the time, the number of Aboriginal people graduating from university was miniscule, my own university graduating one Aboriginal person every three years, a picture mirrored across the nation. Further, research on issues related to Aboriginal people was almost all performed by non-Aboriginal academics or government workers, with anthropologic and sociological studies complemented by research related to the professions – education, health, employment, housing, crime, and so on. While much of the academic literature described the social and cultural life of Aboriginal people, many of the studies and reports from the professions focused on the disastrous state of Aboriginal well-being: poor health and educational status, high rates of incarceration, drug and alcohol abuse, and so on. Up until the 1970s, the programs, services, and other interventions emerging from this information base were controlled and operated by government agencies, staffed almost exclusively by non-Aboriginal people. Despite a few isolated instances of success, a continuing series of reports highlighted the lack of progress.

The newly formed Centre for Aboriginal Studies quite consciously broke from this mold by instituting a philosophy based on "Aboriginal Terms of Reference," a foundational principle requiring all activities to be defined primarily by the experience and perspectives of Aboriginal people, rather than those of the academic world. Protocols within the Centre were likewise focused on Aboriginal practices and values, so that community development took precedence over individual development, and leadership positions were held only by Aboriginal people, despite the fact that there were almost no Aboriginal people with the qualifications that would normally be required by the university. Most Aboriginal people placed in leadership positions in the Centre for Aboriginal Studies, however, had extended experience working within their communities and agencies and brought to the Centre a wealth of knowledge and understanding of the life-world of Aboriginal people. Their lack of professional experience was compensated by systems of partnership, whereby skilled and experienced professionals worked alongside Aboriginal people in advisory roles.

There is a much longer story to be told here, but the outcomes of those years spent formulating Aboriginal-oriented education, research, and community service programs were salutary. Teaching and research activities were based not on the commonly accepted practices of the university, but on the social, cultural, and educational needs of the Aboriginal people.

What emerged from this orientation turned out to be spectacularly successful – 36 Aboriginal graduates proudly accepting their degrees in 1991, a number that was to continue to grow over the years.[1] The Centre grew rapidly, so that research and community services expanded exponentially, staff numbers rose from 5 to 70, and the budget increased from approximately $0.5 million to $3–4 million in a period of seven years. The Centre eventually became acknowledged as the leading unit of its kind in the nation and has served Aboriginal people and the nation well for many years since its inception.

From my own personal perspective, this experience was life-changing, for I was able not only to learn a whole range of new skills, but also to modify and adapt the frameworks of theory and practice that embodied my work in academic and community contexts. Specifically, I learned the inherent value of participatory processes, and the need to frame my work first from the perspective of the people, previously called "subjects" or "students," who were participants in the activities in which I was engaged. I learned that I did not need to be in a leadership position in order to be professionally and academically successful, since my work as "consultant" or facilitator was not only enabling for the people with whom I worked, but turned out to be a highly effective way of practicing my professional and academic role. In teaching, I learned the value of constructivist approaches to learning that I have applied now at every level from kindergarten to doctoral teaching.

In research, I experienced the joy of accomplishment accompanying the many successful projects instituted through participatory action research that framed most investigations for which the Centre was responsible. It is not that I now define this as the only approach to research, for there is still the need for experimental and interpretive studies. Likewise, in teaching, I recognize there are times when direct instruction or other approaches to pedagogy may be an appropriate approach to a program of learning. The overall view, however, is that through the use of participatory and constructivist approaches to research and teaching, I have been able to successfully accomplish my academic and professional academic activities in a wide range of contexts, from urban, rural, and remote regions of Australia, to culturally diverse contexts in the United States, Britain, the Netherlands, Singapore, South Africa, and East Timor.

The theories that have informed my work still include those from psychology, anthropology, and sociology, but these are complemented by and, to a large extent, grounded in the phenomenological perspectives inherent in the life-worlds of the people with whom I work. These provide the basis for framing the research and determining which theories might be most pertinently applied to the ongoing processes of investigation that constitute the projects in which I am involved. Far from being the uninvolved spectator minimizing any intrusion of my presence in the setting, I am consciously and evidently a part of the research process. This constitutes the life-world of an action researcher, actively engaged in processes of inquiry that have as their outcome the resolution to the problem on which

the "study" was based, for the benefit of the people who engage me. Our research is designed not only to provide understanding of the factors/variables influencing events, but to test those understandings "in the field" so that they provide the basis for the solutions to the research problem.

7.7 Applications: Theory in Teacher Classroom Research

Much teacher research requires teachers to identify a "promising practice" related to theoretical constructs they judge to be pertinent to the problem investigated. This application of theory is rather limited, often focusing on the types of variables thought to affect student learning – attention, motivation, instructional processes, assessments, and so on. Nevertheless, it provides the opportunity for teachers to more consciously and systematically reflect on the classroom practices they employ and the outcomes they desire from their students. Often, they are caught in an approach to classroom life that envisages their students in mechanistic terms, subject to the technically devised strategies of learning derived from teacher's professional evaluation of the learning needs of the students, associated with or derived from mandated curriculum content.

A related approach envisages research-informed teaching practice (RITP) engaging teachers in review of research providing evidence of effective pedagogic practices that improve student learning outcomes. Recent approaches of RITP in reform efforts internationally include those in England, Canada, the Netherlands, Norway, and the United States (Malouf & Taymans, 2016; Ostern, 2016; Peurach, 2016; Walker, 2017), though these types of interventions go back many decades (Nelson & O'Beirne, 2014) and underpin the development of regional laboratories in the United States. The underlying theory of these approaches is that effective practices identified by research can be replicated by teachers and school leaders in schools and school systems, thus applying a general theory of "best practice" across classrooms, schools, and systems. As has become evident through many studies and reports, these approaches have, by and large, been ineffective in improving educational outcomes, in whatever measure is used for the evaluation purposes (Cole, 2010; Darling-Hammond, 2010; Sarason, 1990). All point to the need for more comprehensive and integrated reform efforts that do more than replicate current systems of educational social arrangements and economic structures.

More holistic visions of educational change processes are inherent in participatory action research. At the level of the classroom, students are envisioned as active participants in constructing the content and processes of their own learning. Often associated with constructivist approaches to learning, the first move involves processes of inquiry through which students and teachers co-construct a program of learning – their own "theories" of learning. This participatory process involves teachers and students in exploration of what is to be learned, what is already known, how to learn what is not known, and how to assess competency in the skills and knowledge to be acquired. The "theory" behind this may be framed in terms of cognitive learning theory, but within this approach to pedagogy, is more appropriately defined in terms of the social construction of knowledge.

This incorporates student perspectives and lived-experience, focusing on learning as a process of participatory inquiry, in which they collectively envisage the learning process with the support and advice of the teacher.

From the teacher's perspective, this requires her/him to "bracket" (hold in abeyance) their professional stock of knowledge in order to provide students with opportunities to construct learning situations best suited to their own needs. This does not prevent the teacher from making suggestions or comments to students as part of the ongoing construction of the learning situation, but situates them quite differently in relation to their ability to control the specific processes and outcomes of learning. Learning becomes, in these circumstances, a process of negotiation rather than direction, with implicit assumptions about the nature of relationships between teacher and student.

> This rather radical departure from common classroom practice has provided the basis for almost all my teaching for the past 20 years. Envisaging learning as an action research processes, in which students cycle through processes of planning implementation and evaluation, has been highly successful in a wide range of contexts, including kindergarten, using a basic framework that starts with the research question "What do you know about the topic?" Initial discussions emerging from this question map out a wide range of information that is subject to analysis that provides a coherent body of knowledge. The next question, "What more do you want to know about the topic?" reveals gaps in the initial body of knowledge or focuses on particular areas of interest. Finally, there is the evaluation question "How can you demonstrate the level of your competence/understanding/knowledge about this topic?"
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> I, as teacher, exert some degree of control of these processes by incorporating suggestions to consolidate and support student actions, but also to guide them in directions that ensure mandated curriculum outcomes are attained. Even young children have exhibited high degrees of excitement and involvement emerging from these activities, while more advanced classes within graduate education have been able to accomplish highly sophisticated outcomes that are both informative and challenging to all involved.[2] Understanding classroom practices and operations through a constructivist theoretical lens leads to consequences much broader than the measurement of a particular set of learning outcomes. They are more readily apprehended by an outcomes-based curriculum that defines more broadly the characteristics and qualities of student learning. In an extended evaluation of a graduate research class, members and I noted the high degree of involvement of all participants, the extended set of learning outcomes derived from the experience, and the degree to which participants were able to apply those learnings to their own professional perspectives and practices. Teacher action research in all its forms has the capacity to develop understandings/theories about pedagogical practices that have the potential not only to improve a particular set of classroom practices, but also to change the very "theories" on which those practices are based.

7.8   Applications: Theory in Organizational Action Research

While much action research focuses on teacher and classroom research, it is also a highly effective way of improving educational environments at school, regional, state, and national levels. At the systems level, stakeholders at all levels of an institution or educational system investigate specific issues requiring attention, or use participatory processes of investigation as a means of instituting system-wide change or development. Professional theories related to management – organization, budgeting, leadership, planning, and so on – or education – pedagogy, curriculum, assessment, evaluation, and so on – may be incorporated into processes of inquiry, though the specific issues on which the investigation is based will emerge in the first cycles of inquiry.

Although the impetus for research may emerge from those in leadership positions, strategic action research for educational change or development incorporates qualitative research processes to determine stakeholder perspectives and experiences (Stringer, 2008, 2015). Since change and development usually entail processes of review and evaluation, both quantitative and qualitative information is incorporated strategically into cyclical processes of inquiry so that emerging actions are subject to scrutiny and, where needed, modification made to take account of emerging dynamics. This signals a key feature of action research, where the directions and orientations of an investigation may be modified as information from initial stages emerges.

The theories upon which a project is based may enact processes of investigation determined ahead of the study, the content of procedures described in careful detail, with questionnaires formulated ahead of time, and variables to be subject of study nominated. In this case, theories embodied in the research literature may be central aspects of the study. The danger here is that those responsible may miss significant features of the situation impacting on the issues under investigation and incorporate aspects that have little actual impact. More participatory studies will describe the purpose of the study and general areas of concern, then use perspectives of stakeholding groups to determine the nature and direction of ongoing investigations. An action research study will typically engage in cycles of data gathering and analysis, with continuing activities dependent upon the outcomes emerging from the previous stage. Again, these may be influenced by the experience and perspective of the different stakeholding groups, including those who carry the stock of knowledge embodied in the research literature. The final outcome will be some form of strategic plan, with action plans devised for each stage or part of the strategy.

> In my own experience, I've facilitated action research processes to resolve organizational issues within schools or with new programs in education. The participatory and cyclical processes of development of programs of management, community development, and health that emerged were not only highly successful, but a recent study indicated the extent to which graduates were able to successfully engage, and in some cases, provide leadership for a wide range of community-based agencies, programs, and services. (Stringer et al., 2018). In Australia, a school-based study of parent

involvement was successful in defusing an emerging conflict between parents and the leadership of a large suburban private K-12 school. This same process was used in the United States for an elementary school in a Hispanic neighborhood, assisting parents and school staff to create an agenda for developing a stronger relationship between parents and the school (Stringer, 2008). At the high school level, a participatory action research study by students resulted in the resolution of serious conflict between student ethnic groups and ended with the development of a new educational program designed to continue the processes of discovery instituted by the original research (Baldwin, 1997). In East Timor, a highly successful national program of parent involvement emerged from a small pilot study engaged by the department of education (Stringer, 2008). In each case, highly successful outcomes resulted from participatory systems of investigation that had a continuing impact long after the original studies had been completed.

The singular characteristic of these studies has been the responses of stakeholding groups who participated in the study. Not only did they elicit high levels of engagement, but people's enthusiasm and active participation were reflected in their evaluations. The integration of multiple perspectives in the development of texts/reports/outcomes of different phases of the study gave voice and agency to all major stakeholding groups, providing the basis for effective working relationships that characterized the continuing operation of the project.

7.9 Educational Action Research: Theoretical Foundations of Change and Development

An implicit feature of educational action research is that it will lead to change in pedagogical and organizational arrangements in classrooms, institutions, and/or educational systems. Changes emerge from problem-solving approaches to investigation, with research participants working through cycles of inquiry leading to increased understanding of the issues requiring attention and providing the basis for effective solutions to issues investigated. This chapter initially described how classroom action research is often based on the application of theory emerging from academic and professional research which has the useful purpose of encouraging teachers to consciously and systematically reflect on their practices and processes. By itself, however, practitioner research is "captured" by deeply ingrained theories and commonly accepted practices that maintain the educational status quo.

The chapter, then, points to the need to take into account the diversity of experience and perspective inherent in any classroom or school setting in order to provide the basis for more effective and sustainable change. As Sarason (1990) suggests, attempts at educational change or reform are "replete with examples of interventions that either failed or had adverse effects because those involved had only the most superficial and distorted conception of the culture of the schools

they were purported to change" (p. 120). Reflecting on his long history of experience in educational research, he suggested that the search for solutions to the problem of change should not focus primarily on what to *do*, but on what to *think*. In other words, effective answers to educational problems lie not in focusing initially on programs of action, but in devising more comprehensive theories based on the realities of school life, embodying the fundamental foundations of social and cultural life that comprise the history of experience of all stakeholding groups.

Re-theorizing requires research that reaches "outside of the box" of common practice and procedures in order to encompass the experience and perspective – lived theories – of the diverse groups that embody the social make-up of any educational context. Theory is an explanation we construct to better understand something we understand incompletely and is a deliberate attempt to go beyond what we know. Theory – the way we think about or construct the situation – provides the basis for actions that remediate the problems requiring our attention.

Re-theorizing, however, requires carefully constructed processes providing the time and resources required. Following Sarason, five conditions are essential to achieve educational change or reform that is effective and sustainable:

- An outside agent for change is necessary – change cannot come from within, since insiders are "captured" by the social, cultural, and power dynamics of the context.
- Change processes must provide authentic involvement for all stakeholders – those who effect or are affected by any changes to be made – students, parents/caregivers, teachers, administrators, policymakers, employers, businesses, and so on.
- Sustaining motivation for change in stakeholders entails that we understand the perspective and experience of all stakeholders.
- Changes in power relations inherent in developmental processes must serve the interests of all involved. Negotiated settlements of interest must be based on win-win outcomes for all concerned.
- Change processes must result in cultural safety for all involved – feelings of worth and security are essential outcomes for any sustainable systematic change.

The theory involved in the above conditions might be seen as the underlying "thinking" involved in action research processes. In these circumstances, action researchers not only require an understanding of both quantitative and qualitative approaches to research, but also need the capacity to plan and implement the pragmatic strategies required to bring a project of this nature to a successful conclusion. Action research implicitly acknowledges the wide range of theories that can be incorporated into a process of investigation, including academic and professional theories based on quantitative and qualitative research, as well as those implicit in the everyday life-worlds of stakeholders who populate the educational setting investigated. Theory, therefore, operates at different levels for different purposes, all of which may be integrated into processes of educational action research having the goal of establishing the basis for a more humane, effective, and educationally authentic approach to the educational life of schools, communities, and nations.

Notes

1 A more extended account of this history is shortly to be published (Stringer et al. 2018).

2 For an extended account of a constructivist approach to learning in a doctoral research methods class, see the text by Stringer et al. (1997) that provides insight into both professor and student experiences.

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8

Legitimacy of and Value in Action Research

Debra M. Dosemagen and Eileen M. Schwalbach

Perhaps before we begin discussing the legitimacy and value in action research, it would be helpful to understand why it is necessary to defend action research from that perspective. In other words, why is it necessary to argue that action research is a legitimate form of research that has value? This chapter will begin to address that question by exploring the various educational research paradigms and action research's place within these paradigms. Then it will argue that action research, when done well, is not only a legitimate form of research, but one that brings great value to the classroom teacher and students. Through this discussion, it will become evident that action research should be judged by its own set of criteria rather than criteria that are used to evaluate other forms of research. Indeed each type of research has its own unique features while sharing other aspects. Norris (1997) proposed the need to "recognize that the nature of naturalistic inquiry is markedly different from experimental design. This does not mean that concepts of validity are inapplicable or nonsensical, but it does mean that we have to re-appraise their meaning and use" (p. 172). Schön (1995) proposed a similar view when he argued that the scholarship of teaching was "a kind of action research [conducted on the university level] with norms of its own, which will conflict with the norms of technical rationality – the prevailing epistemology built into the research universities" (p. 26).

Therefore, we will argue that action research is a legitimate form of research and that the quality of the methodology and the applicability to classroom practice are the two most important characteristics that determine its legitimacy and value.

8.1   Action Research Within Research Paradigms

8.1.1   Quantitative Research

The legitimacy of action research has been questioned within the research community for a number of reasons. One obvious criticism is that the researchers are

teachers or other practicing educators, not trained scientists – a criticism that must be addressed.

Hodgkinson (1957) criticized the lack of teachers' training in conducting research; therefore, he thought teachers were unable to conduct rigorous, scientific inquiry. While this may be true, action research is not rigorous, scientific inquiry. Action research is "*reflective* [emphasis added] inquiry undertaken by educators in order to better understand the education environment and to improve practice" (Grady, 1998, p. 43). While a goal of scientifically based research in education is to "prove" the effectiveness of an instructional method (National Institute for Literacy, 2006), the goal of action research is to "improve" a practitioner's own practice.

Scientific research is primarily quantitative in nature, based on the belief that knowledge is fixed. According to this philosophical position, knowledge is not culturally bound or relative; therefore, it can be discovered, measured, and used to predict future behavior. The researcher must try to be as objective as possible in collecting and analyzing data in order to present conclusions that are objective.

In contrast, action research, although it may incorporate quantitative evidence, is more closely aligned with qualitative research in its philosophical underpinnings. It is based on the assumption that knowledge is relative, changing, dependent on people and settings. Action researchers, by their very nature as teachers studying their own classrooms, realize that they cannot be completely objective, so they attempt to be as objective as possible. They examine their own assumptions, beliefs, and biases. While action researchers do not have the necessary training of scientific researchers, they do need training to do research that results in trustworthy conclusions and appropriate action steps. (This will be discussed later in the chapter.)

Another objection to action research is that it is not generalizable. In other words, the results of one study cannot be used to make predictions or draw conclusions about students in a different setting. In the post-Sputnik era, action research was in decline because large, scientific studies were heavily funded. The same was true of action research in the United States during the era of No Child Left Behind (2001; US Department of Education, 2002). Policymakers value this kind of quantitative research. They want to be assured that the results from one study can be used to inform policy decisions. Funders want assurance that their investment will have far-reaching impact. For example, according to a guide for teachers published by the National Institute for Literacy (2006), to meet the demands of the No Child Left Behind Act (2002), instruction – particularly reading instruction – was to be grounded in scientifically based research. This guide for teachers specifically outlined the characteristics of such research. In particular, it should:

- employ systematic, empirical methods that draw on observation or experiment;
- involve rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusion;
- rely on measurements or observational methods that provide valid data across evaluators and observers, and across multiple measurements and observations; and

- be accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparatively rigorous, objective, and scientific review. (p. 1)

However, the findings of action research studies are not intended to be generalizable to other populations. Action research has results that are context-specific. They apply only to the teacher-researcher's classroom. The intent is narrow – to improve the teaching and learning in that situation. However, Schön (1995) pointed out that the teacher's "newly generated practice knowledge may be modified and incorporated into the practitioner's repertoire so as to be available for projection to further situations" (p. 31). In addition to enriching the practice of the teacher-researcher, results can be shared with other teachers. In fact, that would be an added benefit of the research, but the primary goal is to improve practice for that teacher.

8.1.2   Qualitative Research

As mentioned previously, action research is positioned within the realm of qualitative research. According to Glesne (1999), "qualitative inquiry is often used as an umbrella term for various orientations to interpretivist research" (p. 8; see also Bogdan & Biklen, 1998). Several common elements are shared by various approaches to qualitative research. One significant commonality is the goal of understanding. Wilhelm Dilthey is credited with formulating the distinction between explanation, referred to as "Erlären," and understanding, known as "Verstehen," as goals of research (Husen, 1988; Reason & Bradbury, 2001). Explanation that establishes causation is viewed as the basis of empirical research, while understanding or interpretation is the center of interpretivist research. Discussions of constructive (Lincoln, 2001), interpretive (Glesne, 1999), qualitative (Grady, 1998), ethnographic (Spradley, 1979; Taft, 1988), humanistic (Husen, 1988; Reason & Bradbury, 2001), and action research (Altrichter, Posch & Somekh, 2008; Carr & Kemmis, 1986; Glesne, 1999; Kemmis, 1988; McNiff, Lomax & Whitehead, 1996; Stenhouse, 1988; Zeichner, 2001) all reference understanding as the purpose of inquiry.

Action research's methodology is strongly influenced by the qualitative paradigm. Lewin's (1952) elements of planning, fact finding, and execution form the basis of the research cycle frequently referenced in current literature on the qualitative research process. As McNiff, Lomax, and Whitehead (1996) noted, some researchers referred to cycles, others, to spirals, still others, to flow diagrams. Regardless of the particular label used, McNiff, Lomax, and Whitehead asserted "the best models represent the idea of practice as nonlinear, accepting that people are unpredictable, and life (even at work) does not follow a straightforward path" (p. 47). In general, authors described some variation of what Stringer (2004) simply explained as a look–think–act iterative process. This cycle also is apparent in Rowan's (2001) model of action research, which begins with a "disturbance" (p. 117) – a problem or an opportunity – in the midst of a teacher's day-to-day practice. Rowan labeled this phase as "Being." This is an informal data-gathering stage. Others like Newman (1998) observed, "unlike traditional research, action research begins not with a research question, but with the muddle of daily work, with moments that stand out from the general flow" (pp. 2–3, as cited in Zeichner,

2001, p. 273). Schön proposed that the scholarship of teaching starts with "what the teacher knows" and then extends it (Schön, 1995).

Once aware of an issue, the teacher explores ideas to inform her action. According to Rowan (2001), during this "Thinking" phase of the process, "we become clearer as to what our research question really is. At a certain point when we are sure that we do have a question but do not have an answer, we stop doing that and start inventing a Project" (pp. 117–118). The development of the methodology represents the "Project" phase of the research cycle. A "project" is essentially an action plan, and when the plan is actually implemented in the classroom, the process moves to the "Encounter" phase. Data analysis takes place when the teacher-researcher tries to "Make Sense" of the results of the action. Finally, in Rowan's model, steps are taken to publicly communicate the results of the process.

Although there was a decline in the popularity of action research during the Sputnik era, the 1980s saw a resurgence. Several influences account for the reemergence of action research in the United States. Qualitative research was growing in acceptance, and teacher education programs were including action research in the curricula (Zeichner & Noffke, 2001). One significant influence was The National Writing Project during the 1970s and 1980s. While it did not explicitly use the term "action research," it used the cycle of data collection and analysis inherent in action research. Donald Schön's (1983) *The Reflective Practitioner: How Professionals Think in Action* – one of a number of influential texts – emphasized a continuous improvement cycle that mirrors the look–think–act cycle of action research as suggested by Stringer (2004).

Cochran-Smith and Lytle (1999) identified several major trends in action research during this time period:

> (a) growth in the prominence of action research in teacher education, (b) development of conceptual frameworks and theories of action research, (c) dissemination of action research findings in journals and conference proceedings, (d) critique of action research, and (e) belief in the transformative potential of action research in education. (p. 15)

The prominence of action research in teacher education is particularly notable for a number of reasons. Preservice teachers, particularly student teachers, are trained in the methodology necessary to ensure valid results. Lattimer (2012) pointed out that instead of imitating instruction modeled by a cooperating teacher, preservice teachers have been encouraged to use student assessment data to inform their intentional choice of strategies. In doing so, student teachers are challenged to connect theory and its application in the classroom. Lattimer cited research that identified a number of skills students teachers develop as a result of engaging in action research, including the development of metacognition and reflective practice, the analysis and communication skills necessary to articulate the impact of teaching on student learning, and a greater confidence in the application of theory to practice.

In addition, Lattimer (2012) noted that, in order to successfully complete capstone student teaching experiences like Performance Assessment for California

Teachers (PACT) and the Teacher Performance Assessment (edTPA), "candidates must demonstrate many of the same skills of inquiry and critical reflection that AR is designed to engender" (p. 1). At the time of this writing, edTPA is used in some form in 40 states.

8.1.3   Research in Teaching

Some of the reasons why action research has been criticized – namely, teachers' lack of training in scientific inquiry and the inability to generalize results – are also some of the reasons why action research is so valuable for educators. Scientific, quantitative research, as well as qualitative research in education, has been the purview of university professors and large research foundations. This kind of research, called "research in teaching," is done by *others* about teachers and classroom practice. The purpose is to generate theory that may fill a gap in the research or replicate another study to prove or disprove the results. This kind of research *may* filter down to improve practice – or it may not – but the intended audience is wide. According to McGlinn Manfra (2009),

> Instead of simply implementing outsider knowledge, teachers engage in decision making and curriculum theorizing [in action research]. They become responsible (and responsive) to both theory and practice ... The notion of teachers as generators of theory moves teacher researchers into a space traditionally reserved for outside educational researchers. (p. 34)

The main purpose of action research is to directly impact teaching and learning: "Although there are many types of research that may be undertaken, action research specifically refers to a disciplined inquiry done by a teacher with the intent that the research will inform and change his or her practices in the future" (Ferrance, 2000, p. 1).

8.2   Validity in Action Research

While teachers are not trained like university researchers in quantitative or qualitative methods, they must have a firm understanding of the methodology of action research to ensure the validity of the results. Many teacher education programs train students in the methodology, both at the graduate and the undergraduate level. School districts offer inservice training for teachers who want to use action research in their classrooms. Regardless of where preservice or inservice teachers are trained, thoughtful implementation of the methodology is essential to ensure the trustworthiness of the conclusions that will impact practice.

So how can teachers ensure the trustworthiness of the conclusions that they draw from their action research?

Validity is a term in research that refers to the accuracy of the claims made about the findings. While there are many definitions, validity is required to claim that action research is a legitimate form of research. In other words, teachers

need to be assured that their findings and conclusions are accurate so that they can be used to inform future decision-making.

Action researchers can apply many of the principles that qualitative researches use to ensure validity:

- They must not try to generalize their results to other groups of students.
- They must be as objective as possible and recognize their own inevitable biases.
- They must ask questions that can be answered by collecting data.
- They must collect data by using well-designed procedures.
- They must analyze their data carefully and thoroughly.

8.2.1 Asking the Right Kind of Questions

Asking the right kind of question is critical to getting valid results. While authors offer different versions of the research cycle, there are many other elements in the process on which authors agree. For example, authors concurred that in action research, the research process begins with a question posed by a practitioner, such as a teacher. Often, this question emerges because of a "discomfort of knowing we [teachers] are not acting in accordance with our values and beliefs" (McNiff, Lomax, & Whitehead, 1996, p 47). Altrichter, Posch, and Somekh (2008) referred to "discrepancies" between plans and practice, between the current situation and the teacher's values or aims, or between various perceptions of the situation. Argyris and Schön (1974) described this disparity as a difference between "espoused theory" and "theory in use." Authors also commonly referred to the topic of inquiry as a "passion" of the teacher-researcher, and firmly rooted in a commitment to improved practice (Sagor, 2000; Schwalbach, 2003; Stringer, 2004).

According to a number of authors (Altrichter, Posch, & Somekh, 2008; Glesne, 1999; Stringer, 2004; York-Barr, Sommers, Ghere, & Montie, 2001), practitioner questions that evolve into more formal research questions emerge from the desire to more completely understand (Verstehen) a situation, as opposed to seeking to explain (Erlären) a situation by showing a causal relationship (Reason & Bradbury, 2001). Authors also agreed that research questions may change over the time of the study, as the teacher-researcher moves through the various phases of the research cycle (Altrichter, Posch, & Somekh, 2008; Schwalbach, 2003; Stringer, 2004).

Not every educational question can be answered through action research, however. Questions that are too broad, too narrow, or extend beyond the classroom context lead to vague or unmanageable instruction and assessment plans. Authors agree that the purpose of action research is to develop a teacher's practice; questions that are not focused on that practice are difficult to examine with action research. For example,

- Why don't students do homework?
- How does parental support impact student achievement?

It certainly is important to understand why students don't do homework, so a teacher could survey students or use a focus group. However, the action research question should focus on what the *teacher* could do to impact students' homework

completion. A review of the literature will show that parental involvement is important for student achievement, so the action research question might ask how the *teacher* could improve her outreach to parents.

Here are some guidelines that will help ensure that questions will yield valid results when explored through action research:

- The question should be relevant and significant to the teachers' classrooms and practices and based in research literature.
- It should have the appropriate scope, not too broad or too specific.
- It should be feasible to accomplish in a limited amount of time.
- It should be open-ended.
- It should be objective and not assume an answer.
- It should be stated clearly and concisely.
- It can be answered by collecting data.
- It must be ethical.

There is, however, disagreement among authors about the structure of the question framing a study. The disparity is apparent not only in descriptions of research questions, but also in examples of them. For example, Grady (1998) suggested that "qualitative research attempts to answer 'why' questions" (p. 4), but gave examples of questions that were not of that form. For example, he offered, "Do teachers' verbal responses to students promote inappropriate student behavior?" (p. 15). As it is phrased, the question violates criteria proposed by Grady himself and two criteria suggested by Schwalbach (2003). First, the question assumes an answer – teacher responses affect student behavior. Second, it is not open-ended, but can be answered as "yes" or "no."

McNiff, Lomax, and Whitehead (1996) suggested that the research question focus on the desired change in the teacher-researcher's own behavior. They stated,

> In action research, there is an emphasis on your own deliberate intention to intervene in your own practice to bring about improvement. This concern needs to be stated in a special way. Action research questions should be of the type: How can I improve...?, because action research should be about your action, not the action of others. (p. 17)

Altrichter, Posch, and Somekh (2008) offered a similar question format. They suggested starting with a statement that was a description of the situation including what happened, who was involved, and the contextual factors at work. This statement is followed by the research question, which includes a target for change or improvement. Altrichter, Posch, and Somekh proposed an example adapted from Kemmis and McTaggart (1982): "When doing group work, the students seem to waste time. How can I increase the amount of task-oriented time for pupils engaging in group work?" (Altrichter, Posch, & Somekh, 2008, p. 41).

8.2.2 Examining the Literature

It is obvious why the research question must be relevant and significant to the teachers' classrooms and practices since that is the definition of action research. It may be less clear why the research question should be informed by the body of

research related to teachers' questions. Yet this is one important way to ensure the validity of the results of the action research project.

While the differences between scientifically based research and action research have already been discussed, research-based strategies explored during the review of literature may guide the development of a teacher's action plan. This is similar to the process of evidence-based practice used in medical and clinical mental health settings. The American Psychological Association (2017) defined evidence-based practice as "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences." This definition is similar to ones articulated by other clinical and therapeutic agencies such as the Institute of Medicine (2003) and the American Occupational Therapy Association (2017). Pediatrician Dipesh Navsaria used the term "evidence-guided" because he saw a narrow definition of evidence-based practice as potentially limiting innovation and creativity (presentation, October 26, 2017).

The American Speech-Language-Hearing Association (ASHA) (2017) outlined steps in the Evidence-Based Practice Process that parallel the phases in the action research cycle. These steps include:

1) Framing the clinical question;
2) Finding the evidence;
3) Assessing the evidence; and
4) Making the clinical decision.

To find the evidence, the ASHA recommended published systematic reviews and/or individual studies. To assess the evidence, the Association suggested consideration of the relevance to the specific question, the protection against bias, and the quality of the methodology.

Just as in other disciplines, a teacher can learn what other researchers have found about the topic by immersing herself in the literature. A deeper understanding will help refine the research question. Possible ways to design the project may emerge. The action research project can be grounded in existing theoretical and conceptual frameworks which will help to operationalize certain terms. Finally, the findings of the action research project can be compared to results found it the literature, which may lead to other questions.

8.2.3   Collecting Data

Triangulating data is one of the most important ways an action researcher ensures validity in the study, specifically by providing sufficient evidence for credible interpretations of the situation. Sagor explained, "Basically, triangulation means using multiple independent sources of data to answer one's questions. Triangulation is like studying an object located inside a box by viewing it through various windows cut into the sides of the box. Observing a phenomenon through multiple 'windows' can help a single researcher compare and contrast what is being seen through a variety of lenses" (Sagor, 2000, p. 5).

Data sources in action research align with data typically collected in other types of qualitative studies, and include participant observations, interviews,

documents, and existing classroom artifacts (Altrichter, Posch, & Somekh, 2008; Glesne, 1999; Grady, 1998; Sagor, 2000). Collecting data from at least three sources allows the researcher to make inferences from multiple sources. There are a number of ways that teachers can collect data:

- Journals – One of the most important ways a teacher-researcher collects data is with a daily journal throughout the project. An objective account of what is happening in the classroom, as well as reflections on what is happening, yields rich data. Because the teacher-researcher is an active participant in the research setting, the teacher's journal serves as "props for memory" (Altrichter, Posch, & Somekh, 2008) to aid the teacher in the process of "making sense" (Rowan, 2001) of the situation.
- Student Work – Student work is another valuable way to gain insights into student learning. Collecting written work and conducting assessments provide evidence. Videotaping student performances can also be useful.
- Rubrics – Scoring guides that delineate the criteria and gradations of quality can be important measures of the quality of student work.
- Checklists – For some action research projects, it might be appropriate to record observable behaviors. Operationalized terms can be turned into checklists of observable behaviors.
- Surveys – Survey questions, either with open-ended or closed questions, are appropriate for gathering data for certain kinds of projects.
- Interviews – While interviews take more time than surveys, they can provide more detailed responses. Answers can be expanded upon or clarified.
- Pre- and post-tests – Depending on the action research project, pre- and post-tests may be appropriate to determine any changes in achievement. Objective tests or writing samples can be assessed.

While this list contains many of the data collection methods that action researchers use, it is not exhaustive. According to Altrichter, Posch, and Somekh (2008), the data the teacher-researcher chooses to collect reflect those aspects of a situation that the teacher judges to be important. The choice of methods is critical to the validity of the results. The teacher-researcher must choose wisely to pick the methods that will best yield the data necessary to answer the research question.

8.2.4   Analyzing the Data

Glesne (1999) suggested that, because of the recursive nature of the research cycle, data collection and data analysis often occur simultaneously. Once data gathering has begun, the teacher-researcher must make sense of it; in other words, she must analyze it. By triangulating the data, the teacher-researcher has gathered rich data from multiple sources. Triangulation is essential so that the inferences drawn are corroborated by a variety of measures. However, this also means that the teacher-researcher has mountains of data to analyze. York-Barr, Sommers, Ghere, and Montie (2001) described the data analysis process as reading with reflection, suggesting that analysis involved "distilling" the information in order to experience epiphanies (citing Denzin) or insights. Grady suggested "dialoguing with the data," while Rowan (2001) described this phase of the cycle

as "soaking in" the data. Authors agreed that data analysis was essentially an inductive, recursive process of methodically searching for patterns and themes, by sifting, making connections, forming judgments, coding, ranking, and categorizing.

This process results in grounded theory or "the discovery of theory from data" (Glaser & Strauss, 1967, p. 1; see also Bogdan & Biklen, 1998; Glesne, 1999). Gall, Borg, and Gall (1996) described this process by stating that "The researcher starts by collecting data and then searches for theoretical constructs, themes, and patterns that are 'grounded' in the theory" (p. 52).

To make valid interpretations of the data, the teacher-researcher needs to synthesize the data from the various sources and be as objective as possible in analyzing the data. Unlike interpreting the results of data analysis in quantitative research, the teacher-researcher cannot generalize to other populations or claim causality.

8.2.5 Using a Critical Friend

Using a critical friend to review the data interpretation is another way to ensure the validity of the results. Another teacher or paraprofessional could help to consider the trustworthiness of the findings. If a teacher is working with older students, a few could serve as readers.

Sandretto (2004) cited authors who agreed that considering the view of someone "outside" the project prompts the researcher to reflect on both the research process and the final results. Norris (1997) concurred and suggested that "critical friends and colleagues can help the researcher explore their preferences for certain kinds of evidence, interpretations, and explanations, and consider alternatives, locate blind spots and omissions, assess sampling procedures to highlight selection biases, examine judgements, and make the processes of research more public" (p. 174).

8.2.6 Assuring Trustworthiness

Action research is a legitimate form of research that provides value not only for the teacher and students, but also for schools. However, to be of value, action research must produce valid results that can inform practice. The following lists provide questions that action researchers can ask to help determine the validity of their studies.

Trustworthiness of the Data
1) Do you have enough data? It's better to have too much data than too little.
2) Have you collected any incidences of data that disprove your findings? Are there any students who haven't performed as you might have hoped?
3) Are your students being honest? In interviews, for example, students might be trying to please you with their answers. Report any possibilities that this kind of dishonestly might exist.
4) Have any significant events affected your students during the course of your study that might have affected the results? For example, was there a fire drill at the school?

5) Have you selected a representative group of students?
6) Have any of the students left your class during the course of the study?
7) Do your students know that they are part of a study? Is this influencing their behavior?
8) Do you have any other observers in your classroom? Is their presence influencing student behavior?

Trustworthiness of the Researcher
1) Are you overly subjective? Have you been as objective as possible?
2) Have you checked your assumptions and beliefs?

Trustworthiness of the Inferences
1) Are you oversimplifying what you have found?
2) Could changes in achievement be attributed to developmental changes in the children rather than to your activities with them?
3) Are you drawing conclusions that the data don't support?
4) Have you considered all possible explanations?
5) Are you overgeneralizing?
6) Have you checked your findings with other teachers, parents, or students?
7) Have you found other studies that have shown similar results? (Schwalbach, 2003)

8.3   Value in Action Research

As previously mentioned, the value of action research is defined by its applicability to classroom practice. As Sagor (2000) noted, "action research is always relevant to the participants … because the focus of each research project is determined by the researchers, who are also the primary consumers of the findings" (p. 3). There are a variety of intersecting ways teachers are transformed by engaging in action research as they develop their craft, become reflective practitioners, and gain a sense of empowerment. As teachers improve their craft, of course, there is a benefit for student learning. Action research also has the potential to bring value to schools as individual teachers engage in it or as learning communities within buildings take on school-wide problems.

8.3.1   Developing Craft Knowledge

The essential function of action research is that teachers develop "new knowledge directly related to their classrooms" (Hensen, 1996, as cited in Hine, 2013). The examination of evidence-guided practices during the process of reviewing the relevant literature contributes to the teacher's pedagogical content knowledge. According to Shulman (1987), who has written extensively on the topic, "pedagogical content knowledge [is] that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding" (p. 8). This is similar to and possibly deeper than what Hensen (1996) described as a "pedagogical repertoire" (as cited in Hine, 2013). Pedagogical content knowledge assumes a sophisticated understanding of the

content to be taught as well as a deep understanding of students as learners. Teachers demonstrate their pedagogical content knowledge when they are able to tailor their instruction to meet the learning needs of their students while maintaining the integrity of the content to be taught. Shulman (1987) noted that "a knowledge base for teaching is not fixed and final" (p. 12). He went on to state that most of the "knowledge base remains to be discovered, invented, and refined" (p. 12). Action research is a vehicle for just such exploration through systematic inquiry and deep reflection.

8.3.2 Becoming Reflective Practitioners

Another benefit of action research is that teachers are developing habits of reflective practice (see McGlinn Manfra, 2009; Schön, 1987). Schön (1987) identified two types of reflection commonly used by teachers – reflection-in-practice and reflection-on-practice. Reflection-on-practice is particularly compatible with the recursive process of action research. Lattimer (2012) noted that like the general nature of reflection-on-practice, "practitioners engaged in AR [action research] must critically explore what they are doing, why they are doing it, and what the impact has been" (p. 2, citing Mertler, 2012; Parsons & Brown, 2002). Holly, Arhar, and Kasten (2009) described "documenting the consequences of action" and explained that "the term 'consequences' is a useful one because it alerts to the importance of paying attention to what happens to student learning, to ourselves, and to our situation" (p. 133). In their framework, information which is the natural "consequence of action" is complex and multi-dimensional – not a single variable that can be analyzed to determine causation. When something in this complex network of information piques a teacher's interest, it becomes data, and when the teacher uses the data to draw a conclusion, it becomes evidence. So reflection-on-practice, as described by Schön, is about a teacher reflecting not only on her actions, but on the consequence of her actions in terms of student learning.

The immediacy of the data collected is invaluable. Sagor (2000) observed that

> all teachers have had the experience of implementing a "research-proven" strategy only to have it fail with their students. The desire of teachers to use approaches that "fit" their particular students is not dissimilar to a doctor's concern that the specific medicine being prescribed be the correct one for the individual patient. The ability of the action research process to satisfy an educator's need for "fit" may be its most powerful attribute. Because the data being collected come from the very students and teachers who are engaged with the treatment, the relevance of the findings is assured. (p. 5)

As Leitch and Day (2000) also noted, "examination of the action research literature reveals that its goals, like those of reflective practice, are change and improvement" (p. 183). Shulman (1987) similarly described what he called the "wisdom of practice," which captures effective practices that impact student learning outcomes.

8.3.3   Engaging in Continuous Improvement

As teachers hone their craft through action research, they engage in a process of continuous improvement. They develop the mindset of a researcher, continually investigating problems, collecting data for analysis, and finding solutions. In contrast to standardized test results which sometimes are not available to teachers before the end of the school year during which students were tested, information gathered by teachers during the action research process to monitor student learning is immediately available and specific to the unique complexities of their students and their setting. Cochran-Smith and Lytle (2009) repeatedly mentioned the construction of "local knowledge" generated by practitioner research, and affirmed that "many educators still believe that deep and significant changes in practice can only be brought about by those closest to the day-to-day work of teaching and learning" (p. 6). Similarly, Sagor (2000) asserted

> When individual teachers make a personal commitment to systematically collect data on their work, they are embarking on a process that will foster continuous growth and development. When each lesson is looked on as an empirical investigation into factors affecting teaching and learning and when reflections on the findings from each day's work inform the next day's instruction, teachers can't help but develop greater mastery of the art and science of teaching. (p. 7)

Lattimore (2012), too, contended that engaging in action research impacted "the professional orientation of the practitioner, providing the practitioner with the skills and dispositions to continually refine and improve practice" (p. 2).

Teacher learning in the context of action research is consistent with what Croft, Coggshall, Dolan, Powers, and Killion (2010) considered job-embedded, professional development (JEPD) which is "grounded in day-to-day teaching practice and is designed to enhance teachers' content-specific instructional practices with the intent of improving student learning" (Croft et al., 2010, p. 2). Croft et al. described JEPD as "teachers assessing and finding solutions for authentic and immediate problems of practice as part of a cycle of continuous improvement" (p. 2). The authors identified several approaches to JEPD including action research, critical friends groups, and professional learning communities.

8.3.4   Empowering Teachers

Action research also empowers teachers by showing them the power of changing one's practice, which in turn affects student learning. By its very nature, action research is directed by teachers from the inception of the research question, to the design of the methodology and the analysis of the data, to the formulation of the final conclusions. As such, the process can empower teachers as professionals whose professional judgment is affirmed throughout the process (Holly, Arhar, & Kasten, 2009; Sagor, 2000).

For the past 30 years, an organization which has actively and intentionally sought to "elevate teaching, [and] empower teachers" is the National Board for

Professional Teaching Standards (NBPTS) (2017). Central to the work of the NBPTS is the development and implementation of the process of National Board Certification, which is described as "a process designed for teachers to demonstrate, through standards-based evidence, the positive impact they have on student learning as a result of their deep and abiding understanding of students, content knowledge, pedagogical practice, ongoing reflection and participation in learning communities" (NBPTS, 2017). While National Board Certification is not action research per se, there are similarities between the processes and the outcomes for teachers and their students.

Five core propositions outline the NBPTS framework for what accomplished teachers should know and be able to do. Originally published in 1989, and affirmed in 2016, the following propositions – seen as "comparable to medicine's Hippocratic Oath – set forth the profession's vision for accomplished teaching" (NBPTS, 2017):

Proposition 1: Teachers are committed to students and their learning.

Proposition 2: Teachers know the subjects they teach and how to teach those subjects to students.

Proposition 3: Teachers are responsible for managing and monitoring student learning.

Proposition 4: Teachers think systematically about their practice and learn from experience.

Proposition 5: Teachers are members of learning communities.

In addition to outlining standards for accomplished teaching, these propositions can serve to connect the role of researcher to the role of teacher particularly in an action research model.

For example, teachers who are committed to students and their learning (Proposition 1) know their students well and understand their learning needs. It is out of this knowledge base that research questions regarding teacher practice and student experience may emerge.

Second, teachers who know the subjects they teach and how to teach those subjects to students (Proposition 2) continually seek strategies or interventions to support student learning. These strategies may be discovered through reading of relevant research, conversations with colleagues, or reflection on practice. These interventions become integral to the procedures in the research design.

Third, practitioner research conducted in a classroom setting demands that the teacher-researcher both manage and monitor student learning (Proposition 3) in order to conduct research and gather data. Lesson plans, formative and summative assessments, and a variety of other classroom-based artifacts become valuable sources of data.

Fourth, classroom research designed within the framework of action research includes an element of self-study (Stenhouse, 1988). Therefore, action research demands that the teacher-researcher think systematically about her practice and

learn from experience (Proposition 4) in order to continually refine the dynamic design of the study (Carr & Kemmis, 1986). The teacher-researcher is challenged to become a reflective practitioner (Schön, 1987).

Finally, the teacher-researcher develops a study with an eye on best practices in the field and a knowledge of current research related to the design and focus of the study. The teacher-researcher assumes a place in the learning community (Proposition 5) in the broadest sense of her discipline and profession as she attempts to systematically address the learning needs of students in her classroom. The teacher-researcher adds the role of learner to the list of responsibilities of those conducting action research (Glesne, 1999).

The NBPTS identified professional judgment as a "hallmark of all accomplished teaching" and described teaching as a "profession of complexity."

Esteemed educator Howard Gardner (2011) envisioned a reality where "teachers should be regarded as and behave like professionals. A professional is a certified expert who is afforded prestige and autonomy in return for performing at a high level, which includes making complex and disinterested judgments under conditions of uncertainty." When teachers are empowered and have the autonomy to engage in action research into and make judgments about their own practice in the context of complex learning environments, they function as professionals in the truest sense of the term. As Hine (2013) noted,

> Within the classroom, empowered teachers can implement practices that best meet the needs of their students, and complement their particular teaching philosophy and instructional style (Johnson, 2012). In exercising their individual talents, experiences and creative ideas within the classroom, teachers are empowered to make changes related to teaching and learning. By doing so, student achievement is enhanced (Marks & Louis, 1997; Sweetland & Hoy, 2002), and schools become more effective learning communities (Detert, Louis, & Schroeder, 2001). (p. 153)

Teacher empowerment, fostered through action research, is particularly important in an educational climate that pressures teachers in a variety of ways. In fact, the strain teachers experience may even prompt some to leave the profession altogether. According to the Learning Policy Institute (Carver-Thomas & Darling-Hammond, 2017), "about 90% of the annual nationwide demand for teachers is created because teachers leave the profession. Two-thirds of those teachers leave for reasons other than retirement" (p. v). Of course, these trends vary from state to state. For example, in a 2016 study conducted by the Public Policy Forum regarding the teacher pipeline in Wisconsin, over 54% of the teachers who left the workforce were well below retirement age. In fact, 34% of teachers who left the profession as reported in this study were in their 20s and 30s. In general, those who don't retire but leave voluntarily cite concerns including testing and accountability measures, and lack of input into school decisions. In addition to teachers leaving the profession, fewer students are enrolling in teacher preparation programs. In the time period between 2009 and 2014, enrollment in preparation programs declined by over 35% nationally, while the number of program completers decreased by over 22% (Yeado & Henken, 2016).

One stressor that teachers face today is the culture of assessment and accountability that relies in large part on quantitative data to assess both students and teachers. Unlike action research, in which the teacher defines the problem, collects the data, and develops a solution, statewide testing has the ability to disempower teachers. Shulman (1987), in his discussion of reflective practice, warned that "those states that have taken working principles of teaching, based solely on empirical studies of generic teaching effectiveness, and have rendered them as hard, independent criteria for judging a teacher's worth, are engaged in a political process likely to injure the teaching profession rather than improve it" (p. 11). Educational historian Diane Ravitch (2011) questioned whether teachers who were not treated as professionals or allowed to think for themselves could foster independent thinking in their students.

No Child Left Behind (2002) impacted the way teachers taught since it mandated the use of instructional interventions which are "proved" effective through scientific research as well as rigorous testing and accountability requirements in K-12 schools (Cochran-Smith & Lytle, 2009). Cochran-Smith and Lytle (2009) contended that "many young educators either do not know about or do not remember a time without high-stakes accountability" (p. 10). Apple (2007) described these reforms as supporting the notion that "'only that which is measurable is important' and [threatening] some of the most creative and critical practices that have been developed through concerted efforts in some of the most difficult settings" (p. 4). Apple used the phrase "audit culture" to describe the emphasis on high-stakes assessments of both students and teachers. Nasir, Scott, Trujillo, and Hernandez (2016) suggested that this culture "shapes not just the focus of their [teachers'] practice, but their professional identity" (p. 355).

8.3.5 Impacting School Change

The value of action research in transforming teachers into skilled, reflective practitioners has been frequently documented (Schwalbach, 2003). However, action research can also benefit schools and be a catalyst for school-wide improvement. Calhoun (2009), who has written extensively about the use of action research as a tool for school improvement, noted, however, that "the development of inquiring communities is what distinguishes action research from school improvement approaches that focus on the implementation of specific initiatives, such as a new curriculum or a new mode of assessment" (p. 101).

As Croft et al. (2010) pointed out, "although JEPD [like action research] can be undertaken by a teacher alone, a view of professional knowledge as social, situated, and distributed among colleagues undergirds JEPD" (p. 5).

According to Ferrance (2000), "often, action research is a collaborative activity among colleagues searching for solutions to everyday, real problems experienced in schools, or looking for ways to improve instruction and increase student achievement" (p. 6), and when action research becomes "distributed among colleagues," the "consequences of action" have the potential to be magnified with the development of a "culture of inquiry." According to the Center for Secondary School Redesign (CSSR, 2015), in a culture of inquiry, "the focus of learning for students and adults is around answering important and compelling questions"

(p. 3). Intentional collaboration among teachers and school leaders addresses relevant questions about practice "using student data in a cycle of inquiry to inform their work" (CSSR, 2015, p. 3).

Principles that apply to student inquiry in a classroom can also be applied to adult learning to improve practice school-wide. Referencing efforts to systematically integrate the arts and design thinking into the school curriculum, the principal of Blair Dual Language School in Waukesha, Wisconsin, Aida Cruz-Farin, outlined key "mindsets" of the culture of inquiry in her school. While each principle is framed from the perspective of the student, each could easily be worded to describe teachers conducting action research. The mindsets are:

- Relevance: When students' questions drive the projects, there is no doubt the topics are meaningful to them.
- Empowerment. All children need to feel empowered.
- Agency. Students become agents of change … Giving students "agency," or control over what they experience, changes their self-image from passive receivers to leaders who influence what happens to them. (Sterman, 2016, p. 17)

Similarly, CSSR's (2015) description of a collaborative "cycle of inquiry" reflects the cyclic nature of action research:

> In a Cycle of Inquiry teachers begin by coming together around a key problem of practice. Teachers then gather appropriate data that they analyze using structured protocols to help them develop a better understanding of their problem. From there, they develop a strategy and plan of action to begin addressing the issue. Lastly, teachers analyze new data to see what impact their strategy has had on the problem of practice. Because it is a cycle, the inquiry continues by raising additional questions that build off the original problem of practice, or arise as a result of new strategies. (p. 11)

Sagor (2000) recognized, however, that "schools whose faculties cannot agree on a single research focus can still use action research as a tool to help transform themselves into a learning organization" (p. 8), even if teachers explore questions relevant to their own classrooms simultaneously, but then share their findings with each other. As Ferrance (2000) noted, when "action research becomes part of the school culture" (p. 14), teachers feel less isolated, and collaboration, communication, and collegiality increase.

8.3.6 Promoting Change for Social Justice

Action research has the capacity to transform teachers and schools. Some scholars would argue that its potential is much greater – i.e. as a vehicle to transform society in more equitable ways. In the often-quoted statement by Carr and Kemmis (1986), action research is described as "a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situation in which the practices are carried out" (p. 162).

Historically, social psychologist Kurt Lewin "developed a research methodology that he termed 'a type of action-research, a comparative research on the conditions and effects of various forms of social action'" (Lewin, 1988, p. 41, as cited in Sandretto, 2007, p. 2). Lewin's original application of this methodology was outside the field of education and involved participation in shared decision-making to address problems and improve practices in a local context (McGlinn Manfra, 2009).

Action research that focuses on the development of a teacher's "pedagogical content knowledge" and the subsequent "consequences of action," may, in fact, have implications for broad goals that affirm the critical or emancipatory natures of action research (e.g. Carr & Kemmis, 1986; Noffke, 1997; Reason & Bradbury, 2008; Sandretto, 2007). When action research is emancipatory, it results in more equitable teaching practices or helps the students themselves develop a more critical lens (Sandretto, 2007).

For example, Cochran-Smith and Lytle (2009) identified major themes in teacher inquiry and participatory research in the decade prior to their publication. One of the most prominent themes was "a distinctive commitment to investigating issues of equity, engagement, and agency in classrooms and schools across the country" (p. 12). They outlined a variety of studies that they believe illustrated this theme. The following (Cochran-Smith & Lytle, 2009, p. 12) are a few examples:

- Language and literacy in multilingual and multicultural early-childhood classrooms (Meier & Henderson, 2007).
- Turn-around pedagogies as literacy interventions (Comber & Kamler, 2005).
- Critical literacies, critical pedagogies (Aaron et al., 2006; Duncan-Andrade & Morrell, 2008; Morrell, 2007; Vasquez, 2004).

These changes in instructional practice align with the description of social justice offered by Sandretto (2004), who noted that social justice in education is "concerned with the development and maintenance of an educational system committed to meeting the needs of all students in order to assist them in reaching their full potential as defined by the students and their families" (p. 33).

As Hine (2013), citing Hensen (1996), noted, "within education, the main goal of action research is to determine ways to enhance the lives of children" (p. 152).

8.3.7 Transforming Students

Of course, the positive transformation of a teacher's practice and the "consequences of action" may also have a positive impact on students and their learning. As Sagor (2000) noted, "action research helps educators be more effective at what they care most about – their teaching and the development of their students. Seeing students grow is probably the greatest joy educators can experience" (p. 3). Data gathered as part of the action research process documents not only the transformation of the teacher's practice, but also the potential transformation of student learning.

8.3.8 Reaching a Wider Audience

Frequently, an action research agenda is private – the exclusive domain of the teacher. Once teachers develop the mindset of researchers through the valuable

professional development action research provides, they begin to formulate their own research agenda. Often during the action research process, new questions emerge from a study, and teachers may continue the iterative cycle of inquiry, sometimes to refine practice further, and sometimes to shift focus to another arena of practice. However, as noted by McGlinn Manfra (2009), "Increasingly, action researchers present their work at national conferences, including the American Educational Research Association" (p. 33), making the research agenda public. By hosting a Special Interest Group (SIG) for those involved in action research, the American Educational Research Association (2017) not only affirms action research as an authentic methodology, but intends to "encourage and actively assist education practitioners to develop their skills in applied research and professional inquiry in order to improve educational decision-making at all levels."

This trend is partly the result of increasing interest in qualitative methods in general and in action research specifically which, as was previously mentioned, gained prominence in America during the 1980s. According to Hong and Lawrence (2011), "for the last few decades there have been active scholarly efforts to formalize self-study research as an accepted form of inquiry and further the framework as a promising research paradigm in educational research" (p. 2). Publications like *Educational Action Research* (http://www.tandfonline.com/loi/reac20) supported by the Collaborative Action Research Network (CARN), *Journal of Teacher Action Research* (www.practicalteacherresearch.com), and *Action Research* (http://journals.sagepub.com/home/arj) provide opportunities for teachers to share their research with the broader education community. Efforts like AR+ (Action Research Plus) supported by Action Research for Sustainable Enterprise in Collaborative Communities (https://actionresearchplus.com) provide a virtual space for teachers to gather resources and share their inquiry practices and the results. All of these options provide opportunities for teachers not only to share what they have already done but also to explore new research arenas.

8.4 Conclusions

Action research continues to be recognized as a legitimate form of research that brings value to individual teachers and schools. It provides teachers with a distinctive methodology for examining problems of their own choosing. While it draws from traditional research methods, it has its own set of criteria by which its quality is evaluated. Teachers develop their craft, become reflective practitioners, and are empowered to be agents of change.

As opportunities for teachers to share their research at conferences and in journals increase, action research has the potential to have an even more far-reaching impact. However, at its heart, the essential purpose of action research remains the transformation of teachers and, therefore, improvement of student learning. Teachers' perspectives change from seeing problems to seizing opportunities to become more effective instructors. When "teachers, schools, and school systems seize this opportunity and begin investing in the power of inquiry, they find that they are re-creating the professional practice of education in their locale as a meaningful and rewarding pursuit" (Sagor, 2000, p. 11).

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9

Comparing and Contrasting Action Research and Action Learning

Tom Bourner and Cheryl Brook

9.1 Introduction

This chapter looks at a form of action-based enquiry, known as action learning. The main aim of the chapter is to explore how action research and action learning are related by identifying their similarities and differences. The chapter also looks at how action learning can support action research and vice versa.

Why is this a significant issue? It is important because there is potential for confusion between action research and action learning, as they are both concerned with "action" and because all research necessarily involves learning. It is important also because this book is about action research in education and action learning is a form of education. And it is important because, in the right contexts, action learning can contribute to the success of action research and action research can contribute to the success of action learning.

The chapter starts with an overview of action learning, where it came from, and its place in educational contexts and then looks at similarities and differences between action research and action learning. It then considers what action learning can contribute to action research and vice versa. The main conclusions of the chapter are that action research and action learning have different domains of applicability, but that they are complementary and, in the right situations, can be mutually supportive.

9.2 What Is Action Learning?

9.2.1 Underlying Ideas

Action learning emerged in the middle decades of the twentieth century as a reaction against traditional forms of education and learning that were dominated by the dissemination of knowledge, particularly knowledge that was old, based on the authority of experts, and of a propositional kind. Each of these characteristics

limited its value in tackling the problems encountered in organizations and other social systems.

First, until at least World War II, there was a clear hierarchy of knowledge, in which the most esteemed was, in the words of Matthew Arnold (1869), "the best which has been thought and said in the world" at least since the birth of Western civilization, which was commonly assumed to be in ancient Greece. Much weight was placed on old and venerable knowledge that had stood the test of time. During the interwar period, however, there was an emerging recognition that the world was changing and, possibly, even at an accelerating rate. It was dawning on some people that the faster the world changes, the less valuable is knowledge inherited from the past relative to *new* knowledge about current and emerging conditions. Much of the knowledge inherited from the past is the product of solving yesterday's problems, which is of limited value in tackling the problems of today.

When the world changes, organizations and other social systems must adapt if they are to survive. Adaptation means learning how to survive and thrive in the new environment created by the changes. It means learning about the changing environment, and learning about the resultant problems and how to tackle them. In a changing environment, new knowledge is a survival condition. This is true of organisms, organizations, and other social systems. According to the originator of action learning, Reg Revans:

> (1) When the rate of change is faster than that of learning, the organism fails. (2) When the rate of learning is as fast as (or faster than) that of change, the organism is likely to adapt, to survive and even to grow. (Revans, 1984, p. 30)

Revans also offered this insight in the configuration of a formula that he termed a "survival condition" for organizations and other social systems:

$$dL / dT \geq dC / dT$$

where L stands for learning, T stands for time, and C stands for change; i.e. survival requires that the rate of learning be equal to, or greater than, the rate of change of the environment.

Revans differentiated learning old knowledge inherited from the past (P) from learning through asking fresh questions (Q). P is recorded in journals, books, and other text-based material by expert authorities. It is the content of traditional programs of study provided by most academic institutions and he referred to it as "programmed knowledge." He called Q "questioning insight," which includes learning from first-hand experience and questioning that experience. He offered a formula for this, too:

$$L = P + Q$$

As the rate of change rises, the value of Q increases relative to the value of P.

Second, the knowledge that was disseminated in the most esteemed educational institutions was not only old but also authoritative; it was legitimized by

privileged elites in the clergy, the academy, the learned professions, and so on, who were in a position to confer cognitive authority. Compared to the weight attached to the words of expert authorities, relatively little was placed on the knowledge of those with first-hand experience of the problem of organizations and other social systems. First-hand knowledge was tarnished by association with manual employment as much first-hand knowledge was to be found in the lower reaches of the social hierarchy in a society when social hierarchy was more coercive than it became in the post-war world. Action learning offers a way of testing first-hand knowledge which can be useful in tackling such problems.

Third, the knowledge disseminated by elevated institutions of education, such as universities, was mostly of a "propositional" kind. This is the type of knowledge that academics tend to care most about. It is knowledge of a "know-that" sort rather than a "know-how" sort. It was also mostly knowledge of a theoretical kind and that opened up the possibility of a theory–practice gap. When tackling problems of organizations and other social systems, such theoretical knowledge can only go so far, but application and implementation usually also require practical knowledge, sometimes called "procedural knowledge" (i.e. know-how[1]). Such knowledge might also be local (situated), context-dependent, and even tacit. Action learning respects such knowledge because its primary criterion of value is its usefulness in tackling problems in organizations and other social systems. It attaches more importance to this than to age, authority, or pedigree. Action learning also values personal knowledge in the sense of self-knowledge. In order to bring about positive change, sometimes the most valuable knowledge of all is self-knowledge of the change agent, including their own strengths and weaknesses, beliefs and values.

In other words, action learning is eclectic in what it recognizes as legitimate knowledge. It is aligned with a philosophy of pragmatism, whereby the worth of knowledge is associated with its consequences. The knowledge that learners acquire in a program of action learning is whatever kind of knowledge can help them tackle the current problems of organizations and other social systems. Such knowledge may be propositional, procedural, or personal. In action learning, participants acquire such knowledge by trying to tackle a problem experienced by an organization to test out their ideas about the problem, the organization, and themselves.

9.2.2   The Practice of Action Learning

The practices of action learning are focused on questioning insight (*Q*), rather than the acquisition of programmed knowledge (*P*). Those practices evolved as a result of experimentation in a series of major projects during the 1960s and 1970s. As a result of that journey, action learning developed a typical format that seems most likely to achieve its intended outcomes. This is sometimes referred to as the "logistics" of action learning and includes the following:

- *Real problems:* Participants in an action learning program each work on a real problem that is as yet unsolved, is important to them, and needs to be resolved

in practice as well as in theory. Here are a few examples, from the authors' experiences, of the kinds of real problems tackled by groups of people: taking teams through a change process; redesigning services; implementing changes in practice; introducing new appraisal processes; managing a merger; dealing with confrontational behavior in the workplace; dealing with poor work performance and managing difficult people at work.

- *Action learning set:* An action learning set is a group of six or so people who learn from their own and the others' attempts to tackle their problems. Their job is to listen to each other's reports of their progress and the difficulties encountered with their respective projects and assist with reflection on their experience, as well as with planning the next steps. In so doing, they act as critical friends providing support and challenge. They offer questions, share different perspectives, and hold each other to account. The action learning set has been termed the "cutting edge" of action learning. Revans (1980, p. 16) described the participants in an action learning set as "comrades in adversity" as they grapple with their own difficult problems. The main vehicle for doing so is the action learning set meeting.
- *Action learning set meetings:* Participants meet in their sets at regular intervals. At a set meeting, each participant takes it in turn to report back and discuss their progress and difficulties with their efforts to tackle their problem. The main role of the other participants in this process is to ask questions in the hope that some of them will be fresh questions (i.e. questions that the participants have not yet asked themselves). One of the lessons of the development of action learning is that responding to such fresh questions can be the source of new ideas and much learning. At the end of the set meeting, each participant commits to taking specified action(s) aimed at making further progress by the time of the next set meeting.
- *Action:* The action that a participant takes before the next setting can be the source of at least three types of learning: (i) the decision to pursue a particular action embodies a hypothesis about the likely outcomes, such that the action constitutes a test of that hypothesis (by taking action, the participant can therefore learn whether the organization is really the way they believe it to be and whether their problem is really the way they believe it to be); (ii) each decision and each action also embodies values and beliefs of the participant about themselves so that "deciding and doing" can be the source of personal learning and self-knowledge; and (iii) the outcomes of action learning provide raw material for the participant's turn at the next set meeting when the other participants can, through the questioning process described above, help with reflecting on their progress and current difficulties to distill further learning.

In summary, participants in an action learning program take some unresolved problem and meet at regular intervals with a small set of other participants who help to distill the learning from their experiences of trying to tackle the problem. This results in cycles of action and set-based reflection, where participants learn with, and from, the others about their problem, their organization, and themselves.

9.3 Where Did Action Learning Come from?

There is a towering figure in the development of action research and it is Kurt Lewin. Likewise, there is a towering figure in the development of action learning and it is Reg Revans. To understand where action learning came from, it helps to know a little about its originator.

9.3.1 Origins and Early Development

Reg Revans was born in 1907, studied physics at University College, London, and then completed a PhD at the University of Cambridge's Cavendish Laboratory. In 1935, he moved into educational administration, becoming responsible for further and technical education for the county of Essex.

Hospitals in the county were finding difficulty in recruiting nurses in the late 1930s, so Revans was asked to produce a paper on the issue from the perspective of the provision of further education and training. He had the idea that he could gain useful knowledge from the first-hand experience of those actually working in the hospitals which included, of course, nurses and trainee nurses, so he visited hospitals in the county to help produce his paper.

Nowadays, we would not see this as an unreasonable thing to do but, given the hierarchical nature of knowledge, education, and social relations in Britain in the 1930s, it could be described as unconventional, possibly even eccentric. According to Barker (1998):

> The idea that 18- to 20-year-old girls could possibly have anything to contribute to how a hospital ward might be organized and patients better cared for was simply ludicrous in the eyes of their "superiors." (Barker, 1998, p. 13)

This simple action embodied three elements that together were a first step toward what would later become action learning:

1) The first-hand experience of those actually working in hospitals could be a source of useful knowledge in tackling the problem faced by the managers of the hospitals.
2) Revans, an Oxbridge-educated expert, could learn from those with first-hand knowledge.
3) He had another idea – that of testing the above two ideas in action (i.e. by going to the source of the first-hand knowledge in the hospitals themselves).

In 1944, while still employed by Essex County Council, Revans was invited, as an outside expert, to produce a report on education and training in the coal mining industry. This time, he went further – he started his preparation of the report by going to live and work with miners in one of the coalfields in the North of England. The report he produced included proposals for a staff college where managers in the mining industry could share their problems and also share their first-hand knowledge to find ways of tackling those problems.

Following the production of this report, Revans was appointed as the head of education and training by the newly nationalized National Coal Board (NCB) in 1947 and continued to champion the cause of first-hand experience as a source of genuine and legitimate knowledge (i.e. knowledge that was particularly useful in tackling the problems of organizations and social problems more generally). The NCB was Britain's largest employer at that time and was experiencing lots of problems associated with moving from private ownership to public ownership.

In the early 1950s, now working as an independent consultant for the NCB, Revans found ways of bringing together those with first-hand knowledge of managing coal mines to apply that knowledge to solve the problems they were experiencing (Revans, 1980).

In 1955, he was appointed professor of industrial administration at what later became Manchester Business School. His research there focused on organizational size, communications, and morale of the employees and communication within organizations with different management structures. At that time, he was arguing that, as well as finding ways of sharing first-hand knowledge within organizations, it was also important to help people in organizations intentionally create their own first-hand knowledge. Consequently, he advocated a form of management education based on managers identifying real problems in their organizations that they wanted to tackle, investigating the problem in the company of others managers, similarly engaged, from other organizations, and then testing out their conclusions in action. He was unable to convince his colleagues at Manchester Business School, who favored the dissemination of authoritative knowledge accumulated in the past using conventional educational methods such as lectures, tutorials, and case studies constructed to lead students to "correct" conclusions.

Being unable to convince his colleagues, Revans resigned his chair and focused his attention on how first-hand knowledge could be used to improve health care in hospitals. On the basis of his earlier research on hospital size, morale, and communication in hospitals, he was asked to lead the development of a project on improving health care in London hospitals – the Hospitals Internal Communications (HIC) project. This was based on helping those with first-hand experience diagnose problems in their hospitals, generate first-hand knowledge, and apply it in improving health care. At this stage in the development of action learning, it seems that action learning and participatory action research were approaching the same destination.

In the late 1960s, Revans was asked to develop a program of management education for senior managers in Belgium, a country where productivity and economic performance was flagging. With the support of the Organisation for Economic Co-operation and Development (OECD), he produced a program, including five universities and 21 of the largest companies in Belgium, whereby the companies exchanged some of their senior managers to tackle outstanding problems in the host organizations. The idea was that this would test the beliefs that they had acquired through their experiences within the particular culture and context of their own organizations. This seems to have been judged a success by those involved, and the OECD and Revans received a knighthood from the King of Belgium for this work. Revans himself credited this program with

rebooting the Belgium economy, which flourished in the 1970s, but there are those who were skeptical of the size of this claim.

Although the Belgium program had an impact on the problems of the companies involved, what interested Revans most was the impact it seemed to have on the participants. In his later years, he often told an anecdote about a time he was asked to speak at a banquet attended by ex-participants in the Belgium program. He said he would prefer if each wrote down one question that participating in the program had led them to. He then read out the questions and expressed particular approval of: "What is an honest man and how do I become one?" (Dixon, 2014).

In 1973, a televised interview with Revans about the Belgium program was seen by the head of one of Britain's largest companies, General Electric Company, GEC (UK). This resulted in an invitation to design a program to develop its senior managers. By this time, Revans was in high demand for speaking about his ideas and setting up programs around the world, so he assembled a small group of colleagues to design, develop, and implement the program. This led to a series of action learning programs within GEC (UK), in which the personal development of the participants was emphasized. A book by two members of the team on the first GEC (UK) program and its outcomes alluded to the emphasis on personal development in its title, *More than Management Development* (Casey & Pearce, 1977). A key development in this program was the recognition of self-knowledge as an element of first-hand knowledge.

This program was also significant in the development of a set of logistics that could be reliably replicated by other development practitioners. These included participants working on own-job problems/opportunities, and the replacement of a two-stage process – with stage one being the diagnostic stage and stage two being the implementation stage – by a more organic, ongoing process of simply developing ideas about how to make progress on a problem and testing those ideas in action. It also included the development of "action learning sets" of peers learning with and from each other as described above. The "action learning set" gave each participant a group of critical friends who could support and challenge each other, offer fresh questions that participants had not asked themselves, and assist with the process of reflecting on the outcomes of actions taken. Meetings of the action learning set encouraged responsible action and provided a forum where participants could be held to account for actions taken or not taken.

By the end of the 1970s, Revans had a set of practices that embodied his ideas, and he produced a manual for practitioners, *The ABC of Action Learning*, which was finally published as a commercial book in 1983. This was taken up by management development practitioners, and by the mid-1980s, action learning had become part of mainstream management development.

9.3.2   Later Developments

Since that time, there have been various developments in action learning. Revans, for example, became convinced that the problems in action learning need not be just the problems of business organizations facing managers, but could be used with any social problem for which there was not a technical solution. Other practitioners have developed other forms of action learning practice. Some of these are outlined in the appendix to this chapter.

9.4   Aspects of Action Learning in Higher Education

As a professor of industrial management, Revans found it difficult to come to terms with management education based on the dissemination of expert-based knowledge. Consequently, he became interested in the learning process itself. In the early 1960s, Revans led a number of interesting experiments in education to test some of his ideas. In one experiment, he filmed school mathematics lessons. From his observations, he noted that "very little chance was given to the children to influence the nature of their lessons, since 5 per cent of the time (two minutes in a 40-minute lesson) was the observed average devoted to the children's asking or answering questions. The rest of the time was programmed by the teacher" (1986, p. 170). This was significant for Revans because, for him, questions were the very engine of learning.

Action learning was, in his view, the best way to educate managers because it focused on real problems in real time in the workplace and because questioning lay at its heart. As we have seen, he resigned his Chair of Industrial Management at the University of Manchester following negotiations over the newly created Manchester Business School because, among other reasons, he was disheartened by what he saw as the School's lack of a fuller engagement with industry.

How widely used is action learning in universities? Frank (1996) was one of the first to explore this question and identified a limited number of university courses in the United Kingdom in which action learning played a part. Bourner and Frost (1996) offered several reasons why higher education institutions had been slow to embrace action learning up until that time, including early difficulty of assessing experiential or emergent learning, difficulties in achieving validation of courses based on action learning, and the fact that "lecturing" skills are very different from "facilitating" skills (1996, p. 23). Nonetheless, from this period onward, there was growing evidence of interest among academics in the use of action learning, especially, but not exclusively, in postgraduate courses.

Pedler, Burgoyne, and Brook (2005) undertook a small-scale survey of UK academics as part of a wider study of action learning practice and found that there was an increasing use of action learning in the university setting. Most respondents saw action learning as being on a growth curve, but limitations to its growth were also identified. These included the lack of theoretical input or critical thinking, that it was regarded as "labor intensive" in terms of facilitation, and that it was seen as ill-defined. Forms of action learning such as critical action learning, self-managed action learning, and virtual action learning are practices which have offered an answer to some of these concerns. Pedler et al. (2005) did find consensus on the principal features of action learning (such as the need for small sets, the need for action on real problems, and agreement that learning comes about from reflecting on actions taken). Most academics were seen to be using action learning integrated into existing taught programs. The appendix to this chapter offers brief descriptions of some variants in action learning, principally, though not exclusively, in the United Kingdom.

There was also evidence of its being used as a staff development tool (for example, with newly qualified university teachers and support staff). Currently, it is also being used to support leadership development in higher education in the

United Kingdom, and it is also gaining in use among post-doctoral and early-career researchers.

Some action learning practices in universities may be viewed as in conflict with the "classical principles" of action learning, most significantly in relation to the role of teacher (either as teacher or facilitator) and the emphasis placed upon expert input. Revans never dismissed expert knowledge (*P* or "programmed knowledge" in Revans' terminology), but he elevated the importance of "questioning insight" (*Q* in Revan's terminology), together with the first-hand knowledge of participants, both individually and as a group or set (1998, pp. 10–11).

There are very few action learning sets which operate without facilitation, and indeed facilitation is seen as very important in the variant known as "critical action learning." This came about because a significant group of academics wanted to inject a more critical flavor into management education in the United Kingdom. They criticized conventional action learning practice as being insufficiently attentive to emotion, power, and politics in the workplace and thus proposed an alternative which would encourage a greater questioning of established assumptions by managers. In the past 15 years, we have seen the emergence and development of critical action learning, which has gone from being a largely theoretical construct to an established form of practice (Rigg & Trehan, 2004; Vince, 2008, 2012; Willmott, 1997). This variant – arguably precisely because it does require expert input and facilitation/teaching – has gained some traction, especially in postgraduate management education. One of the first empirical examples of critical action learning in practice was recorded by Rigg and Trehan (2004). This classic article was a case study centered on a university-based, three-year, postgraduate/post-experience management development program. Drawing upon direct extracts from students' own writings about their experiences with the form, the article offered one of the first tangible illustrations of how critical action learning looks in practice.

9.5   How Is Action Learning Similar to Action Research?

One of the problems in exploring the similarities between action learning and action research is that each comprises a range of different practices. Thus, it is difficult to make statements about action research that apply to all practices that describe themselves as action research. For example, the practice of expert-led action research can differ from that of participatory action research where participants co-create a possible solution to a problem and possibly also how it will be implemented. Likewise, as we have seen above (and in the appendix), there is considerable variation in the practice of action learning.

To avoid too many qualifications, exceptions, and detours from the main narrative in this chapter, we focus in this section on the mainstream versions of action research and action learning (i.e. the "majority models"). These are what we believe are the practices of the majority of action research projects and action learning programs, respectively.

We believe the majority model of action research involves taking action aimed at both improving the situation within a social system and, by so doing, also

contributing to the accumulation of knowledge. It is based on the premise that trying to change a social system is an effective way of gain greater understanding of it. In other words, we can discover new knowledge about an organization or other social system by acting upon it, and that new knowledge can be preserved, disseminated, and applied like any other contribution to the pool of knowledge. Hence, action research provides a way of realizing the advancement of knowledge of social systems and the social sciences, more generally. It is usually researcher-led, involving varying degrees of collaboration with the participants within the social system in question.

We believe that the majority model of action learning is an approach to learning and development based on participants tackling real problems, learning with, and from, a set of other participants who are likewise engaged in cycles of action and reflection. The starting point for action learning is the realization that first-hand experience can yield first-hand knowledge (including self-knowledge) that can help individuals contribute to tackling the problems of organizations and other social problems. The focus of action learning is on the individual participant as the agent of change within an organization.

The most obvious thing that action research and action learning have in common is action. Both are action-based, both value action as a source of knowledge, and both produce actionable knowledge. As we have seen, a fundamental premise of action research is that much can be learned about an organization or other social system by trying to change it, and a fundamental premise of action learning is that participants can learn by testing out their beliefs about a problem and its context within a social system by taking action based on those beliefs and observing whether the results are as expected. Both action learning and action research were forerunners of a group of what became a family of action-centered approaches to enquiry (Raelin, 2009). It seems safe to say that "action" comes high on the underpinning values of both action research and action learning.

Both action learning and action research are problem-centered. They start with a live problem within an organization or other social system. Both are concerned with the problems of real people in real situations in real time, and they both seek to bring about positive change by tackling those problems (i.e. they both seek to make the world a better place).

Both action research and action learning are based on empiricism as the acid test for knowledge claims. Perhaps it comes as no surprise to discover that the Cavendish Laboratory at Cambridge University, where Revans did his doctorate, was the center of *experimental* physics in Britain. Similarly, Lewin's early training was in Carl Stumpf's Laboratory of *Experimental* Psychology at the University of Berlin. "Experimental" and "experiential" have similar roots in valuing sense-based data.

Both Revans and Lewin were inclined toward active involvement in the issues they studied, rather than approaching them as passive spectators or through disinterested contemplation. Both action learning and action research value agency over disengaged observation. As a result, both action research and action learning help to develop proactive attitudes in their practitioners and participants.

Both action research and action learning involve cycles of action and reflection. From each of those cycles can be combed out four constituent elements:

planning, action, observation, and reflection. Both, therefore, resonate with Kolb's experiential learning cycle, which can be helpful in explaining the rationale and practices of both action learning and action research.

Instead of dealing first with abstract principles which may (or may not) then be applied to real-world problems, they both start with real-world problems which may (or may not) then generate abstract principles or theories. In other words, they start with the concrete and then move to the abstract, unlike much traditional research and learning which does the reverse. Both are grounded in the real world, so both can be a source of so-called "grounded theory" (Glaser & Strauss, 1967).

Until the first half of the twentieth century, the dominant view of what constituted legitimate knowledge emphasized reasoning from first principles and the authoritative judgment of experts. Both action research and action learning served to broaden the concept of legitimate knowledge to include first-hand knowledge drawn from first-hand experience. Both recognize situated knowledge that is context-dependent. Each recognizes that such knowledge may not necessarily be generalizable or even transferable. This implies that both are concerned with the domains of applicability of such new knowledge.

The old knowledge based on reasoning from first principles and the authoritative judgment of experts was "top-down" knowledge produced within hierarchical structures. By recognizing first-hand knowledge from first-hand experience, both action learning and action research support egalitarian and democratic values. There are "emancipatory" versions of both action research and action learning (i.e. emancipatory action research and critical action learning, respectively). Both action research and action learning were significant early strands in the democratization of the production of knowledge that took place in the twentieth century.

The notion that academics produce theory and then it is the task of practitioners to apply that theory to real-world issues has often proved problematic. It can lead to disengagement from the real world – the so-called "ivory-tower" phenomenon. It can also lead to subject-centered research and the so-called "theory–practice gap." Both action research and action learning offer solutions to the theory–practice gap, as they start in the real world of practice and its problems and seek to distill theories and learning from them. Consequently, most of the leading players in both action research and action learning have been practitioners as well as researchers.

Both action research and action learning have played important parts within the development of professional practice, including organizational development and change management within public-sector institutions, business enterprises, and not-for-profit organizations.

9.6 How Is Action Learning Different from Action Research?

The previous section has shown that there are considerable similarities between the development of action research and action learning. However, they are not the same, so this section looks at the differences.

Although both action research and action learning are normally concerned with solving problems within social systems (including organizations), the role of the presenting problem is different in action research from its role in action learning. Action research seeks to solve the presenting problem by generating knowledge through taking action within the social system in which the problem is located. By contrast, the role of the presenting problem in action learning is to provide a vehicle for personal learning by the participants. Each action learning participant brings to their experience of action learning a real problem that they want to tackle. The problem need not be a negative one; it could be taking advantage of an opportunity for some improvement. The important thing is that the participant is strongly motivated to bring about that improvement in the situation. By actively working on the problem, making decisions about what steps to take next and actually taking them, participants acquire knowledge about the problem, about its organizational context, and about themselves, including their own values, beliefs, strengths, and weaknesses. If a participant failed to make any progress in resolving his or her presenting problem but gained much personal learning by taking actions in attempting to do so, then the experience of action learning would still have been a success.

Because it is focused on personal learning, action learning has developed a set of practices intended to enhance that personal learning. These practices are rather different from the practices of action research, which has developed practices that reflect its focus on research-based outcomes. The practices of action learning are aimed at supporting the personal learning of the participants in the following ways:

1) Participants work on *real* problems that the participants want resolved. From the perspective of personal learning, this means that the learner is motivated. It also means that the values of the participants are engaged and the fact that they have some prior knowledge of the problem means that they have an initial set of expectations and beliefs about the issue that can be tested through discussion with the other participants and by taking action to move toward a solution to the problem.

2) The action learners meet on a regular basis with a group of other action learners in an action learning set. Typically, each of the participants will be working on a different problem, and they act as critical friends to support and challenge each other as they each attempt to make progress on their problems. Practices vary, but typically also, the time at a set meeting is divided equally between the set members, as each person's issue in turn becomes the focus of attention of the set. During a participant's share of the time in a set meeting, that individual will normally report on progress and difficulties since the last set meeting, and that provides the basis for questioning and discussion. More specifically, each person starts by reporting back on actions taken since the last set meeting, the outcomes of those actions, any difficulties encountered, and any new developments. The other members of the set help them reflect on this experience, mostly by asking questions. This usually leads to a consideration of what they want to do next and to planning the next steps (i.e. what actions to take next). At the next set meeting, reporting back on progress and

difficulties experienced with those actions will be the starting point of each individual's share of the time in the set meeting.

Action learning set meetings cause participants to take time to reflect at regular intervals on what they are doing about their problem, what they've learned about the problem and about themselves, and how this affects what to do next (i.e. it involves taking action on a regular basis and capturing the information generated by that action in attempting to make progress with the problem). In addition, it provides a social context that provides conditions that support personal learning in the following ways:

a) It provides participants with a group of people who can help each reflect on the outcomes of their actions and thereby help them distill the lessons from what they experience in trying to tackle the problem.

b) The other set members can also help a participant plan next steps (i.e. decide on what their next actions should be). The set can be a source of ideas and a sounding board to test out the likelihood of success of alternative actions. Also, having to articulate a rationale for different options to others can help a participant clarify his or her own beliefs and clarify what constitutes responsible action.

c) As well as challenging proposed actions, the set will typically also offer support and encouragement in the participant's next steps. This can help the participant find the confidence needed to step out of respective comfort zones and actually take actions that might otherwise only be thought about. It is outside of the individual's comfort zone where much personal learning can be found.

3) A key element of action learning is the action itself. Unlike case studies based on constructed problems or syndicate groups that discuss real problems but produce only recommendations, the participants in an action learning program go on to implement their proposed solutions in the real world. In this way, they test their beliefs in action. This generates feedback and, hence, more information on which to base subsequent actions.

4) Early experiments with action learning involved participants from the same industry sharing their first-hand knowledge from their first-hand experience to help other participants tackle the problems they were encountering. Over time, it became clear that conveying advice based on one's own first-hand experience was not the best way to support the learning of others. It was found that a better way to help other participants learn was by asking them questions. So now, the emphasis in set meetings is on questioning. The best questions to stimulate learning are so-called "fresh" questions – those that are fresh to the participant to whom they are directed. They are questions that the participant has not already asked of himself or herself. This is why action learning uses the term "questioning insight" for learning that results from this process.

5) Most action learning sets have facilitators. They are not always necessary for the action learning process and there are plenty of examples of self-facilitated action learning sets. However, experience has shown that, especially in the early stages of an action learning set, it is helpful to have a facilitator if only to manage the process so that the participants can focus on their own learning.

In contrast with these practices of action learning, the practices of action research are located within the research milieu and reflect its aspirations to make a contribution to the pool of shared knowledge. Like all good research, action research involves the intentional creation of shared new knowledge. The best action research is that which has significance beyond the specific context in which it was created, which gives it broader impact. This means that action research has to be able to provide methodological justification for interventions.

If the action research is conducted by university researchers, possibly as part of a PhD program, then there is additional scrutiny of its research credentials. The research design will have to be justified to a research committee, which may include specialists from outside of the social sciences, and it will normally also go to an ethics committee, which will require additional justification of a different kind for the proposed intervention. These will reinforce the location of the practice of that research more firmly within the milieu of research. If the action research is conducted by professional researchers, there is likely to be a steering committee that will keep a watching eye on actions taken and actions proposed. These processes are necessary to ensure the action research project embodies good research practice. This level of formality is not found in the world of action learning with its emphasis on participants' personal responsibility for actions taken and their consequences.

An important reason why action learning employs less formal processes and emphasizes personal responsibility lies in the difference between the kind of knowledge pursued by action research and that pursued by action learning. Whereas action research is most interested in generating propositional knowledge about a social problem and its social context, action learning is more eclectic in terms of the kind of knowledge that it values. Action learning is also seeking to develop self-knowledge by participants – "know-how" as well as "know-that," and also even tacit knowledge. If some of the knowledge generated is transferable elsewhere, then that is a bonus. Not many action learners seek to disseminate their learning about their problem, its organizational context, or themselves through publication in academic journals.

If one looks for reasons that mainstream action learning inhabits the world of education and development whereas mainstream action research inhabits the world of research and the advancement of knowledge, an explanation can arguably be found in the backgrounds of the developers of action learning and action research, respectively Revans and Lewin. Revans left academic research in 1935 to work in education administration for 20 years, first in Essex County Council and then with the NCB. This was the period when the foundations of action learning were developed, and his primary concern at this time was the education of individuals. By contrast, when Lewin was developing action research, most of his working life had been in universities (Berlin, Iowa, Stanford, Duke, Cornell, and MIT) and hence he was much more concerned with knowledge, its creation, and dissemination. As a result, attempts to theorize action learning have tended to draw on constructs from the domains of education and development, such as Dewey's ideas on progressive education, Kolb's experiential learning cycle, and Schön's reflective practitioner; whereas, attempts to theorize action research have tended to draw on constructs from

the domains of epistemology, such as positivism versus interpretivism and generalizability versus transferability and issues of validity and reliability of new knowledge claims.

9.7 How can Action Learning Support Action Research and How Can Action Research Support Action Learning?

The main thing that action learning and action research have in common is the acquisition of knowledge by taking action to tackle real problems within organizations or other social systems. The main difference is that action research is focused on contributing to the pool of shared knowledge, whereas action learning is focused on the acquisition of personal knowledge by the action learning participants. However, every act of research starts with some personal learning when new knowledge is first recognized as such by a researcher. This suggests that action learning might have something to contribute to action research and vice versa.

The most straightforward way that action learning can contribute to action research is for groups of action researchers to form into action learning sets with regular set meetings. This could have significant benefits for the conduct of their action research projects. The following paragraphs suggest how this might be done in the context of the *development* of action researchers. In this respect, it is worth noting that when talking about where the idea(s) of action learning came from, Revans often referred to his experience as a young researcher at the Cavendish laboratory at the University of Cambridge. So, it is worth starting with that experience.

Revans was at the Cavendish from the age of 21 to 28 (with a two-year sabbatical in America in the middle), and these were formative years in terms of his beliefs about learning and the advancement of knowledge. He often referred back to these years and saw the success of the Cavendish as stemming from its culture of collaboration and constructive criticism. He saw the roots of action learning as within that intellectual culture. This has been described as one in which:

> … everyone swopped ideas, and, when necessary lent a hand with the others' chores. … It was a nursery in which infant "genius" was given its fling…. It was in the best Montessori tradition, the "infants" were encouraged to use their hands as well as their heads and to "make do and mend." (Larsen, 1962, pp. 59–60)

As well as being distinctive in this way, the Cavendish was also distinctive in the high number of Nobel laureates it produced. While Revans was working there, his colleagues included 11 Nobel prize-winners.

When Revans left Manchester University for Belgium in the mid-1960s, he established a doctoral program including five universities and 21 of the largest business organizations in Belgium. At this point, he seems to have been trying to combine the ethos of research with his still-developing ideas about action

learning. On that program, each participant had a supervisor, the program provided for a two-stage process with the first stage being an investigative enquiry and the second stage involving the testing of the conclusions in action, the participants came together at regular intervals to discuss their progress as in a postgraduate research seminar, and a successful outcome resulted in the award of a doctorate. There is, however, no evidence that this program was explicitly located within an action research framework.

Revans was inclined to refer to these early action learning programs as "experiments," and, after the Belgium experiment, action learning made a distinct turn toward personal development in the nature of the programs developed for GEC (UK) in the mid-1970s.

This suggests that a fruitful place for combining action learning and action research is in the education and development of action researchers, particularly those registered for research degrees. The main goal of such a research degree program is to develop the student's capacity to make a significant contribution to new knowledge through action research. Much of the journey of researcher development involves the acquisition of self-knowledge (including the new researcher's knowledge of their own strengths and weaknesses) and the development of the skills of micro-politics, for example, in negotiating access to organizations.

An action learning set of postgraduate students engaged on action research projects would support the reflexive and reflective processes involved in such researcher development. They would learn from each other's experiences in their separate projects, and each participant would benefit from the social and intellectual support of the other members of the set. Action learning offers a way of organizing a group of critical friends with a clear process for operationalizing the potential support and challenge that critical friends can provide.

Much thought has been given to the *initial* researcher development offered by research degrees, and there is a body of the literature on the subject. Much less thought has been given to *continuing* researcher development, particularly for those who have already completed research degrees. However, moving from the stage of successfully completing advanced coursework and a research dissertation to getting research projects funded and regularly publishing the results of projects in research journals and other media involves significant further development that is not always recognized. For post-doctoral action researchers, action learning offers a vehicle for this level of development, also.

Another way that action learning can support action research is by providing the intervention used to try to change organizations. There are many ways of trying to change organizations – some top-down and others bottom-up, some based on expert knowledge and others co-created with the participants, and so forth. Action learning offers an additional intervention to those in the action researcher's toolkit. A program of action learning can change an organization in significant ways. For example, in the Hospital Internal Communications (HIC) project in the 1960s, an action learning program was introduced, whereby the hospital staff themselves decided what changes they wanted to make to healthcare provision, and they were supported in making the changes, disseminating

their results to the other hospitals, and implementing follow-up changes. This not only generated knowledge from first-hand experience, it also led to changes within the cultures of the hospitals involved toward a culture of personal responsibility and autonomous action.

In general, an action research intervention involving the introduction of a program of action learning will support the development of an organizational culture with more questioning of authoritative knowledge, more proactive behavior, and greater autonomy.

It seems that action learning *can* make a positive contribution to the practice of action research. This leads to the complementary question, can action research contribute to the practice of action learning? One way it can do so is by introducing action learning participants to the basics of social research to provide them with some additional tools in testing their ideas in action. This was done in the early days of the development of action learning, particularly in the HIC project and the inter-universities project in Belgium. It would be entirely possible to focus such an introductory program on the elements of action research. Where action learning is used as a means of postgraduate management education and development, this would be an attractive enhancement of the action learning program.

Another way in which action research can contribute to action learning is that action research could be used to generate knowledge of action learning just like any other social institution or process. This could involve, for example, varying some of the practices of action learning programs and studying the results. Thus, for example, it would be interesting to study the effects of different approaches to the nature and extent of facilitation of action learning or study the effects of changing the size of action learning sets, length of set meetings, and frequency of set meetings, etc.

9.8 Summary and Conclusions

This chapter has compared action research and action learning, paying particular attention to the similarities and differences. Action learning is about learning how to acquire new knowledge to tackle problems which cannot be resolved by applying old knowledge. The practice of action learning focuses on action, feedback, reflection, and learning as a social process.

Action learning and action research have much in common beyond the word "action." Both seek to learn from attempting to effect positive change in organizations and other social systems. Both are problem-based, value agency over disengaged observation, and offer solutions to the theory–practice gap. But, there are significant differences, and most of these stem from the second word in their names – "learning" and "research," respectively. By taking action on social problems, action research seeks to add to the pool of human knowledge about social problems and social systems within which they occur, thereby contributing to the advancement of social knowledge; whereas, action learning is most focused on the personal learning and development of the participants, including their self-knowledge.

Both action research and action learning emerged in the middle decades of the twentieth century and contributed to a broadening of the concept of knowledge to include first-hand knowledge, situated knowledge, and context-dependent knowledge as legitimate forms of knowledge.

Insights from the practice of action learning can be useful in supporting action research, particularly in helping action researchers working on different projects to learn with and from each other. Introducing action learning participants to the theory and practice of action research can help them discover fresh lines of enquiry in acquiring new knowledge to tackle the problems that are the basis of their action learning participation.

These conclusions are particularly significant for the practice of action research and action learning programs based in universities. Programs of researcher development for postgraduate students are especially suited to benefit from the knowledge acquired through the practice of action learning, including how to harness the power of critical friends in providing support and challenge and how to minimize the social and intellectual isolation of researchers, especially part-time research students. Likewise, students engaged in postgraduate programs of education and development using action learning are particularly well placed to benefit from the insights acquired from the practice of action research.

The underpinning values of action research and action learning are similar, and this gives confidence in the potential for fruitful collaboration and cross-fertilization of these practices, possibly leading to the further development of both. The result could be action research which makes a larger contribution to the personal learning and development of the researchers and action learning that makes a larger contribution to the pool of shared knowledge.

Note

1 This is closely related to what has more recently been termed "mode 2" knowledge – see Gibbons et al. 1994.

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Appendix: Developments in the Practice of Action Learning

By the early 1980s, Revans was clear about the principles of action learning and had developed a set of logistics that constituted a reliable practice to express those principles. He recognized, however, that the detailed implementation would be likely to vary to fit different situations. Since that time, there have been a number of further developments in the practice of action learning. In an article titled "What has action learning learned to become?" in 2005, the authors (Pedler et al.) discussed the following forms of action learning practice that embody many of Revans' principles:

- Self-managed action learning;
- Business-driven action learning;
- Critical action learning;
- Virtual action learning.

O'Hara, Bourner, and Webber (2004) describe *self-managed action learning* as "an innovation in the practice of action learning which enables managers to facilitate their own action learning sets and, in so doing, develop the skills of facilitative management" (p. 29). Instead of relying on the continuing presence at all the set meetings of a facilitator who is an expert in action learning, this practice develops the skills of participating in action learning and also managing an action learning set in a foundation workshop in advance of the action learning program itself. This effectively limits the role of the facilitator to setting up the program, facilitating the foundation workshop and the first set meeting(s), and then being available for advice and encouragement thereafter.

Business-driven action learning requires groups to work on projects identified by senior managers and make recommendations for action and improvement. This form of action learning is organization-focused, and is concerned with organization-wide problems rather than individually focused problems. There is an emphasis upon problem-solving and real action (Boshyk, 1999, 2002).

Critical action learning (CAL) is now an established practice and is both a critique of conventional action learning practice and an attempt to harness action learning in enacting the abstract principles of critical theory. Willmott (1997), who is credited with coining the term, criticizes conventional action learning for tending to "individualise and psychologise the diagnosis of problems in a way that disregards their embeddedness in the structural media of power relations" (p. 173).

Virtual action learning is a synchronous form of online action learning in which participants who are geographically dispersed meet in real time. Online or virtual action learning may be viewed as an answer to the problem of the "labor intensive" nature of conventional action learning involving the facilitation of small groups of students in the form of action learning sets. At least one UK university currently offers an online doctoral program based on a critical action learning approach. Curtin (2016) has described an online action learning

approach for a leadership course in the United States which requires participants to select and work on a critical, real problem, and to engage in virtual action learning asynchronous messaging with other students. Despite initial skepticism, he was able to report a positive response on the part of students to the approach.

10

The Underlying Importance of Context and Voice in Action Research

Jack Whitehead

10.1   Introduction

Evidence of the global growth in the influence of action research can be seen in the conferences and publications of, among others, the Collaborative Action Research Network (CARN),[1] Action Learning, Action Research Association (ALARA),[2] Action Research Network of the Americas (ARNA),[3] and Network for Educational Action Research in Ireland (NEARI),[4] as well as in action research journals and international handbooks of action research. While there are many thousands of texts on action research, here are my understandings of action research on which this chapter is based.

The first influences in my understandings of critical theory in action research were those of Carr and Kemmis in the late 1970s and early 1980s:

> Action Research is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out (Carr & Kemmis, 1986, p. 162).

I attended the first World Congress on Action Learning, Action Research, and Process Management in Brisbane, Australia, in 1990, and agreed with the following points made by Herbert Altrichter, Stephen Kemmis, Robin McTaggart, and Ortrun Zuber-Skerritt (1990):

> If yours is a situation in which
>
> - People reflect and improve (or develop) their own work and their own situations
> - by tightly interlinking their reflection and action
> - and also making their experience public, not only to other participants but also to other persons interested in and concerned about the work

and the situation [i.e. their (public) theories and practices of the work at the situation]

and if yours is a situation in which there is increasing

- Data-gathering by participants themselves (or with the help of others) in relation to their own question
- Participation (in problem-posing and in answering questions) in decision making
- Power-sharing and the relative suspension of hierarchical ways of working toward industrial democracy
- Collaboration among members of the group as a "critical community"
- Self-reflection, self-evaluation and self-management by autonomous and responsible persons and groups
- Learning progressively (and publicly) by doing and by making mistakes in a "self-reflective spiral" of planning, acting, observing, reflecting, replanning, etc.
- Reflection which supports the idea of the "(self-) reflective practitioner"

and if they

- are *open* enough so that further elaboration and development seemed possible
- *allow for an* ex post facto *in*corporation of projects into the discussion (which had not been initiative and conducted on the basis of some elaborate understanding of action research) and
- *above all, are shared with respect to the process of its formulation for a specific context*

then yours is a situation in which ACTION RESEARCH is occurring. (Altrichter et al. 1990, pp. 19–20)

At this first World Congress, I was also introduced to participatory action research (PAR) as developed by Fals Borda and Rahman (1991). PAR emphasizes collective inquiry and experimentation grounded in experience and social history. Within a PAR process, communities of inquiry and action evolve and address questions and issues that are significant for those who participate as co-researchers.

Fals Borda and others organized the first explicitly PAR conference in Cartagena, Colombia, in 1977. I attended the 2017 ARNA Conference in Cartagena with a celebration of 40 years of PAR and the major contribution of Fals Borda.

Living theory action research is an approach to action research in which individual researchers generate their living-educational-theories as explanations for their educational influences in their own learning, in the learning of others, and in the learning of the social formations that influence practice and understandings (Whitehead, 1989).

My first explicit action research enquiry took place in 1977 (Whitehead, 1977) and the following analysis of the underlying importance of context and voice in action research is based on my educational influences in my own learning as I continue to explore the implications of asking, researching, and answering the question, "How do I improve what I am doing?" I asked this question in the first lesson I taught at Langdon Park Comprehensive School in London in 1967. Hence, this chapter is based on some 50 years of professional engagement in education and educational research.

10.2   The Importance of Context

In recognizing and understanding sociohistorical and sociocultural influences in different contexts of action research, I am drawing on the ideas of de Sousa Santos (2014) and the questions asked by Hall (2015, 2017).

I shall address contextual influences of colonization and their transcendence through action research and living theory research in terms of de Sousa Santos's ideas of "abyssal line," "subaltern insurgent cosmopolitanism," "epistemicide," "ecology of knowledges," "intercultural translation," and "sociology of absences."

Santos identifies what he sees as the most fundamental problem of the first decades of the twenty-first century. This is the failure to acknowledge the permanence of what he calls an abyssal line. This is a line dividing metropolitan from colonial societies, decades after the end of historical colonialism. He believes that the abyssal line divides social reality so that whatever lies on the other side of the line remains invisible or irrelevant. He says that all the generalizations of the Western social sciences are flawed to the extent that they take into account only the social reality of metropolitan societies; that is, the social reality on this side of the line. The European universalism, celebrated by the Frankfurt School of Critical Theory, is based on this truncated view that leaves out the social reality of the other side of the line. Santos says that the most important problem created by the abyssal line is the collapse of social emancipation into social regulation on this side (the metropolitan) of the line.

In Santos's view, our fundamental problem is how to reinvent emancipation in the face of regulation in such a way that a degenerative conflation of emancipation into regulation is avoided. In the examples below, I shall show how some of those who use action research are contributing to the global enhancement of emancipation in the face of pressures of regulation. It is worth focusing on Santos's point that *we are facing a modern problem that cannot be solved in modern terms*. Santos states that science, including the social sciences, is part of the project of Western modernity. Santos believes that the sciences are much more part of the problem than part of the solution. He says that, at the most, they may help us to elucidate and bring analytical precision to the different dimensions of our problem.

Santos advocates what he calls a paradigmatic transition that includes new relationships between epistemology and politics and between epistemology and subjectivity. These new relationships involve a radical break with modern Western ways of thinking and acting. In Section 10.3, below, on voice in action

research, I shall explain how the living theories of action researchers are providing such a radical epistemological break with Western ways of thinking and acting. Santos advocates learning from an epistemology in a struggle for what he calls *subaltern insurgent cosmopolitanism* based on a subaltern cosmopolitan reason.

Santos uses the term *cosmopolitanism* to describe the global resistance against abyssal thinking. He recognizes that this may seem inadequate in the face of its modernist or Western ascendancy. Santos's phrase, "subaltern, insurgent cosmopolitanism," refers to:

> …the aspiration of oppressed groups to organize their resistance and consolidate political coalitions on the same scale as the one used by the oppressors to victimize them, that is, the global scale. (2014, p. 135)

Santos names insurgent cosmopolitanism as a form of counterhegemonic globalization. At the heart of the efficacy of subaltern, insurgent cosmopolitanism for creating emancipatory actions from the other side of the abyssal line is the energy of epistemicide. By epistemicide, Santos means an energy that comes from a destabilizing image of the murder of knowledge.

He points out that unequal exchanges among cultures have always implied the death of the knowledge of the subordinate culture. He goes so far as to claim that in European expansion, the epistemicides perpetrated by hegemonic Eurocentric modernity are one of the conditions of genocide (2014, p. 92). Santos embraces an understanding of an ecology of knowledges.

For Santos, the ecology of knowledges confronts the logic of the monoculture of scientific knowledge and rigor by identifying other knowledges and criteria of rigor and validity that operate credibly in social practices pronounced non-existent by reason on the other side of the abyssal line. In Section 10.3 of this chapter, on voice in action research, I introduce the idea of living-educational-theories as individuals' explanations for the educational influence in their own learning, in the learning of others, and in the learning of social formations that influence practice and understandings (Whitehead, 1989). I point to the evidence that shows how the living-educational-theories of action researchers have identified and gained academic accreditation by identifying other knowledges and criteria of rigor and validity.

> …at every step of the ecology of knowledges, it is crucial to ask if what one is learning is valid and if what one already knows should be forgotten or unlearned and why. Ignorance is disqualifying when what one is learning is more valuable than what one is forgetting. (p. 188)

Santos emphasizes that credibility in the ecology of knowledges does not entail discrediting scientific knowledge. This is consistent with living theory action research, in that a living-educational-theorist includes insights from the most advanced social theories of the day.

In the ecology of knowledges, finding credibility for non-scientific knowledges does not entail discrediting scientific knowledge. It implies, rather, using it in a

broader context of dialogue with other knowledges. In present conditions, such use of scientific knowledge is counterhegemonic. The point is, on the one hand, to explore alternative conceptions that are internal to scientific knowledge and have become visible through the pluralist epistemologies of various scientific practices (feminist epistemologies, in particular) and, on the other, to advance interdependence among the scientific knowledges produced by Western modernity and other, non-scientific knowledges (p. 189).

As an alternative to both the abstract universalism that grounds Western-centric general theories and to the idea of incommensurability between cultures, Santos proposes the idea of intercultural translation. For Santos, intercultural translation consists of searching for isomorphic (similar form or structure) concerns and underlying assumptions among cultures. It includes identifying differences and similarities, and developing, whenever appropriate, new hybrid forms of cultural understanding and intercommunication. These new hybrid forms

> …may be useful in favouring interactions and strengthening alliances among social movements fighting, in different cultural contexts, against capitalism, colonialism, and patriarchy and for social justice, human dignity, or human decency. (2014, p. 212)

The voices of action researchers are shown in their living theories below to be contributing to such a social movement in working and researching to extend the influence of values and understandings that are isomorphic between cultures and carry hope for the flourishing of humanity.

The work of intercultural translation can be related to what Lyotard (1986) refers to as the postmodern condition:

> A postmodern artist or writer is in the position of a philosopher: the text he writes, the work he produces are not in principle governed by pre-established rules, and they cannot be judged according to a determining judgment, by applying familiar categories to the text or to the work. Those rules and categories are what the work of art itself is looking for. The artist and the writer, then, are working without rules in order to formulate the rules of what will have been done. (Lyotard, 1986, p. 81)

Santos claims that it is a living process that is carried out both with arguments and with the emotions deriving from sharing and differing under an axiology of care (2014, pp. 212–213). This living process is isomorphic with the claims of living theory researchers concerning the values that carry hope for the flourishing of humanity. Hence, for Santos, the work of translation is far from being an intellectual exercise. It is a pragmatic instrument for mediation and negotiation. Its purpose is to overcome the fragmentation inherent in the extreme diversity of social experience of the world uncovered by the different ecologies of knowledges (p. 224). Intercultural translations must be converted into blueprints of alliances for collective transformative practices in responding to experiences of epistemicide and post-abyssal thinking. I shall show below how this is being done in the living theories of action researchers through cooperative enquiries that are

being guided by the values of the International Co-operative Alliance (http://www.actionresearch.net/writings/coop/coopvalues.pdf).

Budd Hall (2015), the joint UNESCO Chair, with Rajesh Tandon, in Community-Based Research and Social Responsibility in Higher Education, has offered ideas on moving beyond epistemicide with knowledge democracy and higher education. He addressed some questions to himself:

1) How do I "decolonize," "deracialise," demasculanise, and degender my inherited "intellectual spaces?"
2) How do I support the opening up of spaces for the flowering of epistemologies, ontologies, theories, methodologies, objects, and questions, other than those that have long been hegemonic, and that have exercised dominance over (perhaps have even suffocated) intellectual and scholarly thought and writing?
3) How do I contribute to the building of new academic cultures and, more widely, new inclusive institutional cultures that genuinely respect and appreciate difference and diversity – whether class, gender, national, linguistic, religious, sexual orientation, epistemological or methodological in nature?
4) How do I become a part of creating the new architecture of knowledge that allows co-construction of knowledge between intellectuals in academia and intellectuals located in community settings? (Hall, 2015, p. 12)

These "I" questions are the kind of questions asked, researched, and answered by action researchers in generating their own living-educational-theories. On June 16, 2017, at the 1st Global Assembly for Knowledge Democracy: Towards an Ecology of Knowledges, in Cartagena, Colombia, Budd Hall (2017) highlighted the importance of including indigenous knowledges in an ecology of knowledges. The importance of visual data in indigenous knowledge can be seen in this 9:37-minute video of Budd Hall at https://www.youtube.com/watch?v=K2q5IoK87_k in which he says:

> "The great turning," … a prophecy among other things, said that the world will realize that it has advanced as far as it can based only on European knowledge and that there will be time, and that time has begun, where the ancient knowledges of the indigenous world will be needed again to assure the salvation of the planet and all its living species.

10.3   The Importance of Voice

The necessity for the practitioner of speaking on his or her own behalf has been highlighted by Foucault:

> You were the first to teach us something absolutely fundamental: the indignity of speaking for others. We ridiculed representation and said it was finished, but we failed to draw the consequences of this "theoretical" conversion – to appreciate the theoretical fact that only those directly concerned can speak in a practical way on their own behalf. (Foucault, 1980)

Having emphasized the importance of context in action research, I now want to focus on the importance of voice from a number of very different contexts, beginning with voices from China's Experimental Centre for Educational Action Research in Foreign Languages Teaching at Ningxia Teachers University (see http://www.actionresearch.net/writings/moira.shtml).

10.3.1   Voices from China

Li Peidong and Moira Laidlaw (2006) of Ningxia Teachers University, China, have asked, researched, and answered their question, "How can we facilitate a process of educational change?" They focused on collaborative enquiry, action research, and curriculum development in rural China:

> This article shows how two colleagues, one Chinese, one British, are learning to work together in a Teachers' College in north-west China as we help to facilitate change in our organization. The change constitutes the setting up of Action Research enquiries as a way of enhancing learning and professional development together with changes in The New Curriculum for the teaching of English. Tentative conclusions are drawn about our educational influence on each other, colleagues in our department and beyond, as well as its effects on curriculum development. By working through our assumptions, we show some of the benefits of our collaboration and how we have overcome some fundamentally different precepts about education. The most profound of these are concerned with the differing epistemological norms and attitudes to collectivism and individualism. We discover the significance of keeping open minds in enhancing our insights and actions and in our conclusion look to the possible characteristics of our collaboration in the future. (abstract)

10.3.2   Voices from 6- and 10-year-old Students and Their Teachers

The following voices are from 6- and 10-year-old students and their teachers in classrooms in the United Kingdom with Mounter (2006) and in Croatia with Bognar and Zovko (2008). The students and teachers are engaged in action research.

As part of her master's degree, Mounter (2006) researched her educational influence with her 6-year-old students as she introduced an action research approach to learning using the action-reflection cycle, Thinking Actively in a Social Context (TASC) (Wallace, 2008). Mounter's research question was, "Can children carry out action research about learning, creating their own learning theory?" (http://www.actionresearch.net/writings/tuesdayma/joymounterull.pdf).

The paper gives access to video clips of the pupils responding to the questions "What use is the TASC Wheel?" and "What do you think of the TASC Wheel?" at http://www.youtube.com/watch?v=ti4syOrIDdY and http://www.youtube.com/watch?v=LSqg1phEEaM.

The video evidence not only demonstrates that the 6-year-olds' grasp the action-reflection process, but also exhibits their creativity, as they point out a limitation of a two-dimensional representation of the TASC process. They

emphasize that their action research has dynamic qualities that should be included in three-dimensional representations of the TASC process.

Branko Bognar and Marica Zovko (2008) show that 10-year-old students can become action researchers in improving their own learning:

> In our inquiry the pupils determined their own challenges with the aim of improving something important in their own lives. We show that Action Research is meaningful only if students engage with it on their own terms, on the basis of their own needs, interests and self-chosen values. Anything that hinders pupils' freedom will only compromise the foundations of Action Research itself and any educational value accrued from it. (p. 1)

Branko Bognar conducted group interviews with pupils trying to check if they truly understood the process of action research:

BRANKO: Would it be possible if you needed to explain to, let's say teacher Vesna's students, what action research is, how would you, in the most simple way, explain this to them? So, would you like to tell us?

TOMISLAV: Well it is research in which you want to, I don't know, research or improve something, something in your life, it doesn't have to be in your life, you just want to find out something about it.

BRANKO: Good. Go ahead. How would you explain it?

ANICA: It is improving something important in your life.

BRANKO: Good. And how, if they were to ask, how are you going about this research now?

ANICA: I make a plan and decide that according to the plan I will try to improve it.

BRANKO: And how do you know if you have improved something?

VALENTINA B.: Well somebody can confirm it through an interview. To question somebody whether it has improved. Or record it on tape.

BRANKO: Good.

TINA: Simply find a critical friend, develop a questionnaire or an interview … I mean, have him watch.

BRANKO: You just said a critical friend. What do you mean by a critical friend?

VALENTINA: I already said that he tells you what you haven't done too well, what you can do better, not just praise you: "Oh that's great, oh that's wonderful."

BRANKO: Good. Go ahead. Did you want to say something?

ANA: A critical friend is always with you and he will always give you [ideas], tell you what is missing or what not to do and what to do, he always says…

TOMISLAV: It's a friend who gives you advice about the things you didn't do right in your plan and the things that you did and what you could improve.

BRANKO: Good. Thank you. Did somebody else want to say something?

BRANKO: Well, tell me are you, when somebody tells you … for instance someone tells you that something is not good, that you didn't do something right, gives you some kind of remark, criticism, how do you feel? Are you angry with your critical friend or are you glad that he said that to you?

ANA: No, because if there was something missing, he was supposed to tell me because I chose him to tell me such things.

BRANKO: Go ahead. Did you want to say something?

MARSEL: Well, I am glad that he tells me that because we have to know something about ourselves as well, to gather some information.

BRANKO: Good. Did you want to say something?

MARIJANA: Well, I don't get angry if he tells me something's wrong. I don't get angry about that.

BRANKO: Is there anybody who didn't feel too comfortable?

VALENTINA: Me. I mean, to me, when they say it, I feel sort of regretful, but I still take it because I know that sometimes I have to face consequences in life.

BRANKO: Good. And tell me, when you finish with a certain part of your performance, your activities and when you complete your own plan, what do you do after that?

ANICA: Start with new plans.

BRANKO: How do you start with a new plan?

ANICA: Well the same way we did with the first one. I'll make a plan and start researching again.

BRANKO: Will it be related to what you have previously done or will it be something completely different?

ANICA: It can be completely different or it can be something similar.

BRANKO: If it is related to your previous work, how will your previous work help you?

ANICA: Well it'll help with the plan. The way I did it, the way my family reacted, that way I'll be able to see how I will develop my plan, how I can act. (Bognar, 2004a)… (Bognar & Zovko, 2008, p. 30–32)

Bognar writes:

> Several pupils succeeded in writing reports and I made an agreement with Vesna Šimid to have the validation process in her classroom. Marica took four students in her car to Vesna's school in Klakar where they presented their action research inquiries. Vesna's pupils listened to Marica's pupils attentively, asked questions, and then rewarded them with spontaneous applause. As shown in Video 4 and Figure 5, it's possible to see that Marica's pupils had prepared written reports in the form of posters on big sheets of paper and with my support they fulfilled the validation aspects of their

action research. Later, Marica repeated this procedure in her classroom and helped pupils to gain control over the whole process of action research. (Bognar & Zovko, 2008, p. 33)

See "Validation of a pupil's Action Research report" at https://vimeo.com/1415387.

10.3.3   Voices from The Collaborative Action Research Network (CARN)

The Collaborative Action Research Network began as the Classroom Action Research Network in 1976 and supported the formation of the journal *Educational Action Research* in 1993. Mark Hadfield and Kaye Haw (2001) emphasize the importance of "voice," young people, and action research:

> This article moves from an overview of what is meant by the term "voice" to discussing the significance of its links with action research. It does this through using a simple typology of three types of voice: Authoritative, Critical, and Therapeutic. Each type of voice represents a different process of articulation and intended outcome. It then moves on to consider "voice" and the collaboration of young people in educational action research by unpicking a series of four assumptions which delineate major theoretical and practical possibilities and limitations. These assumptions provide a critique of the underpinning ideologies held by professionals when supporting and listening to young people. (p. 485)

10.3.4   Voices from Action Learning, Action Research Association (ALARA)

ALARA began as the Action Learning, Action Research, and Process Management Association in 1990. The 2018 World Congress of ALARA in Vermont, USA, is committed to sharing the following voices in five keynotes organized by Emmanuel Tetteh, the International Vice-President of ALARA.

The keynote speaker for Track One on "Action Learning, Action Research (AL/AR) Experiences of Individuals" is Hilary Bradbury, a scholar-practitioner whose work focuses on the human and organizational dimensions of creating collaborative learning communities.

Bradbury convenes the global network of action researchers which seeks to transform conventional notions of knowledge production. Called AR+ (action researchplus.com), their mission is "accomplishing more good together." I do urge you to add your voice to AR+.

The keynote speaker for Track Two, on the AL/AR Experiences of Professionals, is myself. Dr. Tetteh accurately describes me as:

> …a living educational theorist based in the UK. Previously at the University of Bath, he is now a Visiting Professor at the University of Cumbria, UK, and Ningxia Teachers University in Ningxia, China. He originated the idea that individuals could create their own explanations of their educational influences in their own learning, in the learning of others and in the

learning of the social formations in which their inquiries are located, as their living-educational-theories. He pioneered the use of digital, multi-media narratives for clarifying and evolving the meanings of the expression of embodied values in explanations of educational influence, in research degrees. The resources on his website (www.actionresearch.net) are an international resource for action researchers who are generating their own living-theories with values that carry hope for the flourishing of humanity. These theories are generated from inquiries of the kind, "How do I improve what I am doing?" in which "I" exists as a living contradiction.

The keynote speaker for Track Three, on the AL/AR for Communities' Developments, is Mary Brydon-Miller. Brydon-Miller is a Professor in the Department of Educational Leadership, Evaluation, & Organizational Development in the College of Education and Human Development at the University of Louisville. She is a participatory action researcher who conducts work in both school and community settings. Her most recent research focuses on research ethics in educational and community settings and on the transformation of institutions of higher education through action research. She is the editor, with David Coghlan, of the *SAGE Encyclopedia of Action Research* and is completing work on a book on ethical challenges in the context of participatory research with her colleague Sarah Banks, from Durham University. Her next major project focuses on working with middle school students from around the world to engage as citizen scientists to better understand the impacts of global climate change.

The keynote speaker for Track Four, on the AL/AR for Organizational Advancements, is Ernie Stringer. (For details of the voice of Ernie Stringer see the section below on Voices from Indigenous Knowledge Enquiries in Australia).

The keynote speaker for Track Five, on Action Learning, Action Research for Global Initiatives, is Hassana Alidou.

Alidou is the co-author of *Action Research to Improve Youth and Adult Literacy in Multilingual Contexts: Empowering Learners in a Multilingual World* (Alidou & Glanz, 2015). This book provides guidance for trainers of youth and adult educators and for those who manage non-formal education and curriculum development programs in youth and adult literacy.

One of the greatest challenges in education today is to adapt and respond to a linguistically and culturally diverse world, and to combat social disintegration and discrimination. Participatory and collaborative action research represents an empowering and emancipatory approach to this challenge because the "target groups" become involved as equal partners (Alidou & Glanz, 2015, cover).

A collaborative panel discussion at the 10th World Congress of ALARA with all five keynote speakers will focus on the action learning question: Where do we go from here, in the quest of addressing the action learning and action research legacy for transforming social change? Readers of this chapter are invited to contribute to this ongoing conversation from the homepage of ALARA (https://www.alarassociation.org).

10.3.5 Voices from the Action Research Network of the Americas (ARNA), Including Both North and South America

The ARNA began in 2012 and held its first ARNA conference in 2013. You can access its democratic, multi-voice, multiple perspectives stance of action research at http://www.arnaconnect.org. The ARNA brings together people of the Americas and beyond who engage in and support action research. We have created a website that can be read by visitors and edited by members. In keeping with the democratic, multi-voice, multiple perspectives stance of action research, we invite our members to join us as web developers to help create the future of ARNA-connect. We hope you will explore and become involved as a member. We are a growing network and welcome active participation!

1) Watch a video about how ARNA got started. Explore the ARNA website to find more information about ARNA. If you attended a conference, you are a member.
2) Check out the "Resources" and think about what resources you can add to the site.
3) Explore the ARNA Member and the University/Organizations and Network Map. Being an ARNA member is a bit like joining your public radio station – you don't have to join, but it is good for all of us if you do.
4) Use the ARC tab to explore the Action Research Communities (ARCs) of ARNA. Members can join one of these communities. We are just beginning this, so you can be one of the leaders here.

10.3.6 Voices from Participatory Research in Asia (PRIA)

Participatory Research in Asia (PRIA) was established in 1982. PRIA's mission is building capacities of citizens, communities, and institutions to enable vibrant, gender-equal societies. See www.pria.org. PRIA's Founder-President, Rajesh Tandon, highlights to importance of active citizenship in PRIA:

> Active citizenship is about both rights and obligations. Great policies and big schemes cannot automatically result in improvements in people's lives without collective awareness and actions of citizens for whose public good they are created. Also, merely pin-pointing the weakness of government institutions is not enough; we have to find ways to support them to improve their capacities and functioning. (Dr. Rajesh Tandon, PRIA. https://pria.org/about-pria-3-2-0)

The motto of PRIA is "Knowledge. Voice. Democracy." These involve: valuing diversity of knowledge cultures – forms, languages, expressions; listening, supporting, and amplifying the voice of hitherto excluded – their dreams, hopes, frustrations, and pains; and promoting practices and rituals of participatory democracy and making institutions transparent and accountable to citizens.

In this section, I am also highlighting the voice of Dr. Swaroop Rawal (2006) from her work in India, especially in supporting the education of girls. Here is the abstract from her doctoral thesis on "The Role of Drama in Enhancing Life

Skills in Children with Specific Learning Difficulties in a Mumbai School: My Reflective Account."

> This thesis is a reflective account of an action research project set in a drama classroom. It is a multi-voiced, patchwork text which is created and built imaginatively to represent my students and my experience in the drama classroom.
>
> On one level, it deals with the question, "How can drama be used to enhance life skills in children with specific learning disabilities studying in a school in Mumbai?" On the second level, it is related to the question "How can I improve my practice?"
>
> This research is concerned with a teacher's capacity to recognise and realise the opportunity of an alternate reality in teaching – the reality of loving and caring for the students; the reality of an empathetic, compassionate, just, and democratic classroom.
>
> The foundation of this study was laid when I saw the children in need suffer due to insensitive teaching practices and uncooperative peers and family. I was concerned with the trauma faced by students in the prevalent educational setting in India. I believe that what I do in education should help make changes for the better in our society. Life skills enhancement, in my understanding, was a way to alleviate the stress the children experienced seeing that life skill education promotes mental well-being in young people and behavioural preparedness … Additionally, this study investigates the influences of Action Research on my practice and the impact of engaging in the stages of Action Research which provided me with a methodical structure for implementing and analyzing the teaching and the learning process. This defined structure guided me through systematic and conscious data collection, data analysis, and reflection. The data is composed of classroom observations and transcripts, a collection of the students and my work and interviews with their schoolteachers and parents … (Rawal, 2006, abstract)

Over 10 years later, in her continuing post-doctoral enquiries into enhancing the learning of marginalized children, Rawal (2017) writes in "Making the 'Impossible' Possible: Using a Living Theory Methodology to Improve my Practice,"

> This paper explores how I had a change of understanding concerning my relationship with the children of my country, and how I entered an "I-You" relationship (Buber, 1970) of genuine love and care. The change encouraged me to negate the contradictions I experienced in my practice and take concrete steps towards the betterment of their learning. The gifts and talents of the marginalized children have persistently been dismissed and it has been alleged that they are "impossible" to teach. As I try to make the "impossible" possible, I draw attention to the education of the rural children in India who have unequal opportunities and education; with proper motivation they can achieve beyond what some consider to be possible.

Through a multi-media representation of my classroom, I discuss the unexplored domain of pre-vocational education in the primary school. I believe it to be a field for consideration, scrutiny and research if we hope to augment the educational competencies of our children to enable their seamless entry into the world of work.

I share my students' and my own experiences in learning as I seek to communicate an innovative paradigm of vocational education, while using a living educational theory approach to answer the question, "How do I improve what I am doing?" (Rawal, 2017, p. 72)

10.3.7   Voices from the Network for Educational Action Research Ireland (NEARI)

NEARI is a network for action researchers who are new to action research, as well as those who are working on action research projects along with some who are life-long action researchers. This is a cross-sectoral group with participants from all levels of the education system. If you would like to learn more about what is happening at NEARI, read our blog at http://www.eari.ie, or if you would like to join the NEARI network, please contact us at info@eari.ie.

At NEARI, we support and promote educational action research opportunities, while providing a platform for sharing and disseminating our research, publications, key contacts, history, and current activities to teachers, schools, and communities. The aim of this network is:

- to contribute to the greater good and growth of educational knowledge by sharing our research stories and useful resources;
- to provide encouragement and support for action researchers in conducting rigorous and evidence-based work;
- to provide opportunities for personal and critical engagement through networking and resource sharing;
- to link action researchers in Ireland with the broader global action research communities; and
- to build an action research platform to enhance learning and teaching in educational contexts and in teacher education in Ireland.

While Roche, McDonagh, Glenn, and Sullivan have produced several books since being awarded their living theory doctorates from the University of Limerick in Ireland in 2006 and 2007, the voices and narratives in their doctorates remain a lasting testimony to their original contributions to the knowledge-base of action research:

- 2007 "Towards a Living Theory of Caring Pedagogy: Interrogating my Practice to Nurture a Critical, Emancipatory and Just Community of Enquiry"
- Mary Roche's PhD thesis (Roche, 2007)
- 2007 "My Living Theory of Learning to Teach for Social Justice: How do I Enable Primary School children with Specific Learning Disability (Dyslexia) and Myself as Their Teacher to Realise our Learning Potentials?"
- Caitriona McDonagh's PhD thesis (McDonagh, 2007)

- 2006 "Working with Collaborative Projects: My Living Theory of a Holistic Educational Practice"
- Máirín Glenn's PhD thesis (Glenn, 2006)
- 2006 "A Living Theory of a Practice of Social Justice: Realising the Right of Traveller Children to Educational Equality"
- Bernie Sullivan's PhD thesis (Sullivan, 2006)

10.3.8 Voices from the Bluewater Action Research Network (Canada) (BARN)

One of the problems with context and voice in action research is that texts, such as this, are heavily influenced by the limitations of the hegemonic influences of Western academic traditions. For example, it was only in 2004 that the Senate of the University of Bath changed its regulations governing the submission of research degrees to permit the submission of e-media. This opened the way for the inclusion and use of digital visual data as evidence in an action researcher's explanation of their educational influence in learning. It isn't easy, within the printed text-base of an international handbook, to point to some of the limitations of this form of communication, especially in communicating the meanings of the embodied expressions of energy-flowing values in the practices and explanations of action researchers. However, I do hope that you will take the time to access the "living-poster" of the Bluewater Action Research Network (BARN, n.d.) in Canada, to appreciate their innovative use of multi-media narratives to clarify and communicate their educational inquiries (http://www.actionresearch. net/writings/posters/barn020617.pdf).

10.3.9 Voices from Indigenous Knowledge Enquiries in Australia

Here is Dr. Emmanual Tetteh's introduction to the voice of Dr. Ernie Stringer:

> Dr. Ernie T. Stringer is intended to serve as the WC Keynote Speaker for the Stream/Track Four on the AL/AR for Organizational Advancements. Dr. Stringer has spent the last 50 years as a teacher, practitioner, professor, and action researcher; he has an extensive background in education, including ten years as a primary teacher, and ten years in teacher education at Curtin University. Over that time, Dr. Stringer has engaged with others to think generatively and to develop a new vision for humanity. It is through this effort that he hopes to better equip people to locate new solutions and possibilities for themselves and the communities of which they are a part. Through teaching – from the primary to the Ph.D. level – Ernie's experiences have covered a broad spectrum, and he attributes this diverse history to who he is. Dr. Stringer has also made significant contributions by authoring numerous influential texts on action research, including *Action Research in Education* (2008), *Action Research in Health* (with Genat, 2003), *Action Research in Human Services* (with Dwyer, 2004), and *Integrating Teaching, Learning, and Action Research* (with Christensen & Baldwin, 2009).

At the Centre for Aboriginal Studies at Curtin University (1986–2003), he engaged in action research projects and consultancies in schools, Aboriginal communities, government departments, non-government organizations and business corporations. In 1988, he assisted in the development of an Australian National Aboriginal Education Policy. He was contracted by UNICEF (2002–2005) to direct a highly successful community engagement project for the East Timor Department of Education, Culture, Youth, and Sports. Through visiting appointments at universities in Illinois, New Mexico, Texas, and New York, he has maintained continuing connection with an international network of scholars in education, anthropology, and sociology. He is the author of numerous action texts and past President of the Action Learning, Action Research Association. For most of the past decade, he was an Associate Editor of the *Action Research* journal, while engaging in action research activities with local Aboriginal people in the Ngaanyatjarra school system in Western Australia.

There are further voices that focus on indigenous knowledge from an Australian context in Masters and Whitehead's (2017) review of *Customs that are Law in an Aboriginal Cosmoscape: Justice, Mercy and Survival in Bill Harney''s Imulun Wardaman Aboriginal Spiritual Law*.

Review: "There can be a really good ending in Imulun in Australia" (heading, p. 201).

This book does not fall readily into any single genre (or other)-category, which is part of its very real interest. There is something significant and appealing here for anyone, based on Four Circles's deep humanity and spirituality; however, it is especially for those with an interest in, and concern for the immediate and long-term future of "Two-Worlds" Aboriginal and other Indigenous peoples, within the apparently "assimilation-based" justice system in Northern Territory.

Without detailed knowledge, e.g. of formal Australian law and related practice, and as outsiders, there is much that we are not qualified to comment on or discuss. However, we can attempt to illustrate how the voices of Bill Idumduma Harney and Hugh Cairns sit within "Living Theory" Action-Research practice, and present and consider, in outline only, the case they make for an appreciative and deep valuing of their Marriage and Family Customary Law; and for its approach to redeeming their miscreants to be more widely adopted.

The context in which we write this review is one of deep distress on all sides, as a Royal Commission is being set up to investigate the various forms of extreme abuse, including tear-gassing of young Aboriginal boys in the "Don Dale" Juvenile Detention Centre in N.T. From what we can gather online, this is now deeply political. Bill Idumduma Harney, and Four Circles, may have an explicit role in the investigations and recommendations.

Deneulin (2014) introduces a Peruvian lady who "had to stop her (environmental) activism out of fear (of severe intimidation)," (p. 80). She goes

on to say, "This lack of capacity to express one's emotions and suffering severely affects the capability for voice and political participation." There is "capable," carefully-considered truth-telling about suffering in Four Circles from both authors, which seems to us to be highly relevant in our context, with a valuable constructive approach. The Royal Commission could provide a constitutional setting for direct, politically-relevant participation. Four Circles is far from being a political diatribe; rather, a strongly-voiced expression of pain. It seems to us to be a strong and well-considered offering of an essential, practical, value-based way forward which demands attention, rather than an "attacking" text. It is based on trust that the book will help the "White Man" to "wise-up," and do the right thing in the best interests of all. In recommending the book, we are aligning ourselves with this tone.

The book's Dedication, to be found at the end, (p. 210), is therefore significant:

It is dedicated to the indigenous people of the Australian continent, with praise for their courage in keeping to the road of freedom, equality and community; and with prayers for the fulfillment of their hopes and expectations in Australia where their land is loved, their families are nurtured, and their spiritual Life and Law given freedom under a spiritual Sovereign, under a Parliament and Government elected to govern for all the people, in honour and respect for the lives and cultures and persons of everyone: Originals, Settlers, and New. (p. 210)

10.3.10   Voices from the Action Research Africa Network (ARAN)

This network enables action researchers in the United Kingdom to learn from African researchers about Ubuntu as a way of being as they explore multi-media narratives for representing their action research studies.

Eden Charles (2007) has made an original contribution to educational knowledge about Ubuntu in his response to his question: "How Can I Bring Ubuntu as a Living Standard of Judgement into the Academy? Moving beyond Decolonization through Societal Reidentification and Guiltless Recognition." Here is the Abstract to his thesis:

This is a living theory thesis which traces my engagement in seeking answers to my question that focuses on how I can improve my practice as someone seeking to make a transformational contribution to the position of people of African origin. In the course of my enquiry I have recognised and embraced Ubuntu, as part of an African cosmology, both as my living practice and as a living standard of judgement for this thesis. It is through my Ubuntu way of being, enquiring and knowing that my original contribution to knowledge has emerged. Two key approaches are identified and described in depth: "guiltless recognition" and "societal re-identification." These emerge from a perception of self that is distinct within but not isolated in an awareness of "inclusionality." They are intimately related concepts. Guiltless recognition allows us to move beyond the guilt and

blame that maintains separation and closes down possibility. It provides a basis for action and conception that moves us towards the imagined possibilities of societal reidentification with Ubuntu … Visual narratives are used to represent and help to communicate the inclusional meanings of these living standards of judgement. The narratives are focused on my work as a management consultant and include my work with Black managers. They explain my educational influence in creating and sustaining the Sankofa Learning Centre for Black young people in London. They include my living as a Black father seeking to remain present and of value to my son within a dominant discourse/context in which this is a contradiction to the prevalent stereotype. (Charles, 2007, Abstract)

You can access Charles's (2007) thesis from http://www.actionresearch.net/living/edenphd.shtml.

The importance of context and voice in action research has been stressed by Keizer-Remmers (2017), whose doctorate was awarded by the University for Humanistic Studies in Utrecht, for her thesis on "Underneath the Surface of Cosmopolitanism: In Search of Cosmopolitanism in Higher Education." My reason for including Keizer's point on cosmopolitanism below is that Keizer engages with cosmopolitanism as a moral concept that, for me, carries hope for the flourishing of humanity, in the context of professional higher education:

> Looking for cosmopolitans: An unexpected journey
> Writing a doctoral thesis is a puzzling endeavour. It is like embarking on an expedition with a fair idea about the destination, the route to follow, and the duration of the journey. One starts out with a more or less coherent itinerary, clear stops on the route, and a well-defined end in mind – only to find out that it has seemingly autonomously evolved into a completely different expedition; it develops as it goes along and becomes something one has neither anticipated nor planned.
>
> In my case, I set off on a quest to find cosmopolitans, but instead encountered myself as a "living contradiction" (Whitehead, 2000, p. 93). As such, this exploration has benefited from a metamorphosis from a post-positivist rationalistic plan to "prove something" into a participant-led socio-analytic visual study – one that is embedded in an account of a reflective practitioner (Schön, 1983, 1987), as she grapples with cosmopolitanism as an inspirational moral concept for professional higher education. (p. 17)

10.3.11 Voices from the Educational Journal of Living Theories (EJOLTS)

EJOLTS was established in 2008 to provide a public, freely accessible forum for action researchers, self-study researchers, and other researchers who were willing to hold themselves to account, in their explanations of educational influences in learning, for living their values and understandings as fully as possible.

EJOLTS is committed to publishing living-educational-theory (often shortened to living-theory) accounts of practitioner-researchers from a wide range of global, social, cultural and professional contexts. We welcome submissions from all Living Educational Theory (often shortened to Living Theory) researchers who wish to contribute rigorous and valid accounts of their living-theories to improving educational knowledge.

The journal focuses on the living-theories of practitioner-researchers. Researchers generate their living-theories as their values-based "explanations for their educational influences in their own learning, the learning of others and the learning of social formations" (Whitehead, 1989) in the process of researching questions such as, "How do I improve what I am doing." The values at the heart of Living Educational Theory research (often shortened to Living Theory research) are the life-enhancing values that are relational and ontological, in the sense that they give meaning and purpose to the lives of individuals and groups. They are values that carry hope for the future of humanity, such as love, freedom, justice, compassion, courage, care and democracy. (http://ejolts.net)

You can access the archive of contributors from http://ejolts.net/archive, with the current issue accessible from http://ejolts.net/current.

I have explained above how important it is to access digital, multi-media texts for communicating the meanings of the embodied expressions of relational and ontological values. These are the values that are used as explanatory principles in the explanations of action researchers of their educational influences in learning.

Because of the importance of digital, multi-media texts in transcending some of the limitations in my present, printed, text-based writings, I do urge you to access the homepage of living-posters at http://www.actionresearch.net/writings/posters/homepage020617.pdf. Here is the invitation to create and share your living poster and encourage others to do the same by:

- Creating and uploading a two- to three-minute video-clip to YouTube of you communicating the essentials of your context, interests, research passions, practice, and values as the explanatory principles and living standards of judgment to which you hold yourself accountable in your practice.
- Creating an attractive A4 poster including text and images, and the URL to your YouTube video, which provides brief details of your: context, interests, the values that motivate you and give your life meaning and purpose, research passions, details of a few of your key publications, the URL to your website if you have one, and your contact details.
- Sending us two files of your living poster: (i) as a PDF, and (ii) in whatever program you have used to create it (e.g. Word, Pages, PowerPoint) with one to four keywords that summarize the essence of what you are about to jack@actionresearch.net.

10.4   Conclusion

I began this chapter on context and voice in action research by drawing on ideas from de Sousa Santos's (2014) social science theory. These ideas on "epistemicide" helped me to explain the contribution of action researchers to an epistemological transformation in educational knowledge with a grounding in the embodied knowledges of action researchers. I shall conclude this chapter by drawing ideas from other social scientists to draw a distinction between the dominating influences of global, neoliberal economic forces and the counterhegemonic influences of action researchers who are supporting cooperative economics.

Jones (2015) has analyzed corporate power and questioned the idea of a responsible capitalism while advocating actions that move toward social accountability. Jones and O'Donnell (2017) have offered alternatives to neoliberalism in actions that move toward equality and democracy. I am suggesting that the global, transformative influences of action researchers, in enhancing the flow of values and understandings that carry hope for the flourishing of humanity, will include analyses such as those offered by Jones and Jones and O'Donnell that reveal the way that neoliberal economics serve to constrain these values and understandings. The International Co-operative Alliance offers cooperative economic practices that are transcending these constraints (see http://ica.coop/en/whats-co-op/co-operative-identity-values-principles).

Action researchers, who are committed to cooperative values and understandings, seek to live as fully as possible the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. Cooperative action researchers believe in the ethical values of honesty, openness, social responsibility, and caring for others.

If the above ideas resonate with your own ontological values and research interests, do make your own contributions, from your own context and in your own voice, to the community of living theory action researchers, narrative inquirers, self-study researchers, and autoethnographic researchers who are already contributing to enhancing the influence of living theory research as a social movement with values that carry hope for the flourishing of humanity.

Notes

1 www.carn.org.uk/?from=carnnew/index.php
2 https://www.alarassociation.org
3 http://arnawebsite.org
4 http://www.eari.ie/neari-network-for-educational-action-research-in-ireland/

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11

Supportive Contexts for Action Research

Jennifer J. Lesh and Jennifer Gleason

11.1   Introduction

Gaining access to the field or obtaining permission to conduct research with participants in educational settings is often discussed in doctoral classes, explained in a paragraph or two in research textbooks, and mentioned in peer-reviewed journal articles; however, there is little written or explicitly explained about how to methodically navigate current learning systems and structures to support educational action research (Bogdan & Biklen, 2003; Patton, 2002). Little is discussed on how to systematically, ethically, and adroitly secure and maintain access to conducting action research within educational research settings. Literature dealing with gaining access to the field does not address difficulties of finding an educational site that meets specific requirements of the research, such as demographics, available courses, and location. Nor does the literature discuss the issue of a researcher rejecting a site.

The purpose of this chapter is to provide supportive contexts to conduct action research – more specifically, advice about how to successfully gain access to appropriate educational institutions and maintain the research agenda in those collaborative research relationships within these pre-kindergarten through higher education partnerships. In addition, the commitment of this chapter is to discuss avenues to create bridges to barriers that may occur prior to and/or while conducting action research in those educational venues, as well as discuss protections and the process of obtaining consent to work with vulnerable populations, such as students with disabilities and those who identify as lesbian, gay, bisexual, transgender, queer, intersex, or asexual (LGBTQIA).

Action research is a qualitative research method that identifies a problem and uses a recurring process to plan a study, gather and examine data, and reflect on the data and research procedure (Mertler, 2016). The field of education has a preference for action research because the process includes the implementation of change and improvement through reflection on practices. Therefore, it is imperative to conduct educational action research in natural or authentic

scholastic settings. This process allows educators to conduct the research and find solutions to problems that may result in the improvement of practices, quality of education, or the lives of the students and the educators (Hawkins, 2015; Hine, 2013; Locke, Alcorn, & O'Neill, 2013). Action research is utilized by diverse disciplines using varying approaches to action research, some examples of which include participatory, community-based and community-based participatory, collaborative, feminist, and cooperative research (Fouché & Chubb, 2017). In opposition to "traditional" types of research that focus on gaining new knowledge, the purpose of action research is to improve issues that affect educational institutions by reflecting on the research process to implement change (Fouché & Chubb, 2017). Therefore, it lends itself rather well to the demands of pedagogical exploration and problem-solving within various educational settings, such as public, charter, and private schools, school districts, and non-traditional educational settings, as well as higher education institutions. However, these educational systems and structures are not always easy to circumnavigate; several barriers may exist and create delays in conducting the research. These barriers may also require the research design and methodology to be altered or even abandoned if the obstacles and barriers are substantially limiting.

When discussing "issues that affect an educational institution," the institution may perceive this research inquiry as actually investigating problems that they do not necessarily want to have discovered or revealed to the general public or to other educational entities. This research investigation may be perceived by the educational institution as an invasion of privacy and they may not see the benefit of the inquiry. It is incumbent upon the researcher to construct an inclusive, collaborative appeal to practitioners. The inclusive, democratic nature of action research necessitates participation and engagement of educational stakeholders – it results in the promotion of social justice, equity, and the empowerment of the people (Fouché & Chubb, 2017; Snoeren, Niessen, & Abma, 2011; Yanar et al., 2016).

This chapter will explore common obstacles in discovering supportive contexts for conducting action research in pre-kindergarten through twelfth-grade sites as well as higher education settings. The chapter will identify methods of gaining access to educational systems and structures. In addition, the nuances of cultivating partnerships between researchers, practitioners, and their education sites will be identified, as well as modes of communication between the researchers and practitioners. Several additional themes will be discussed as they apply to the navigation of the action research process in educational settings: relationships with stakeholders, participation and cooperation of stakeholders, and obtaining vulnerable participants' consent.

11.2   Educational Systems and Structures that Support Action Research

11.2.1   Insider Affiliation

Another of the first steps in the action research process is discovering a willing and appropriate site for the research. The researcher must consider the following questions when determining the appropriateness of an educational research venue:

- What demographics are required? (grade level, race, age, gender, education level, etc.)
- Does the proposed method and/or design easily fit the structure of the venue?
- Is the location of the venue easily accessible to the researcher in regard to travel time?
- Is the venue implementing complimentary curriculum and programs?
- Who are the gatekeepers that must be contacted? Is email, face-to-face, or phone contact best?
- Are there additional institution procedures that must be followed?

The process of searching for the suitable venue to conduct research is made easier if the researcher is familiar with the territory and is known by administrators or "gatekeepers" who are in charge of the instructional site. Gatekeepers impose rules on those who are seeking to do research within their institutions. At the higher education level, gatekeepers can be subject pool coordinators, the institutional review board (IRB), and/or the office of sponsored projects. In PK-12 settings, gatekeepers can be a school district or university IRB, an assistant superintendent, or a building principal (Sieber, 1992). This step is made easier if the researcher is an "insider," either through affiliation with the research site or through a pre-existing partnership. Wanat (2008) acknowledged that being an "inside" researcher affiliated with a university that has a positive, pre-existing partnership with the local school district eased the process of finding educational research sites for her research (p. 195). However, being an "insider" does not necessary equate to total access to the educational institution. The internal researcher must also be cognizant of the institutional hierarchal structures, power struggles, bureaucracies, and inside politics that often permeate educational organizations. In addition, the researcher must be aware of any organizational IRBs or systematic vetting methods that must be followed in order to conduct research inside the organization. Obtaining permission by the institution does not guarantee that the potential participants will be willing to participate in the research study. The researchers must cajole the partnerships with the actual participants, who may also have their own building hierarchal frameworks, authority battles, and internal politics. Therefore, it is important to establish positive relationships with the gatekeepers, as they have the power to assist researchers in understanding and establishing rapport with the participants of the inquiry (Sieber, 1992). Researchers may choose to select an establishment in which they have an entrusted interest, such as their own school district, school, or institution of higher learning where they are employed or have built a familiar working relationship. In fact, it is the belief of the authors that action research is best cultivated when the researcher is situated or has a rapport with the institution in which the proposed inquiry is to occur.

11.2.2 Outsider with no Affiliation

For an "external" researcher – that is, a researcher with no affiliation to research site institutions (Tatebe, 2015) – finding a research site is more difficult due to the lack of assistance that a partnership affords researchers. A common obstacle that "external" researchers face during this process is finding a site that shares

interest in the problem the researcher wishes to study (Locke, Alcorn, & O'Neill, 2013). An educational site's interest in the research does not equate to willingness to participate, a fact that may result in rejections that are often attributed to timing of the research (Oates & Riaz, 2016). This dilemma creates other issues, such as the need for more time spent building rapport and relationships with the gatekeepers of the institution, which can result in time constraints to the original timeline of the actual research project. In other words, time spent engaging in research relationship-courting activities decreases actual "on the ground" research activity time. Persuading individuals to participate, along with building trust and credibility at the building or participant level, are all time-consuming, but necessary, activities (Creswell, 2007).

However, it is not impossible to gain access to educational institutions with which the researcher has no previous affiliations. There are other methods of gaining access to the organization. For instances where the researcher does not have a working relationship with the organization, it would behoove the researcher to begin by identifying the gatekeepers of the organization. In addition, it is also beneficial to determine if there are any acquaintances or friendships already formed somewhere in the organization. The researcher can then authentically explain his motive for the contact and describe the proposed research to be completed within the institution. It would be best if the researcher explained that the research is IRB-vetted and then inquire who in the organization would be the best agent to contact regarding access to participants. If possible, the researcher should ask if the acquaintance is willing to assist in making connections to these individuals.

Based on literature (Balakrishnan & Claiborne, 2017; Maruyama & Deno, 1992) related to access to research sites – and the authors' first-hand knowledge and experiences – an "outsider" researcher may reject a site if the site imposes expectations, limitations, or requirements on the researcher, study, or participants. The researcher would have to evaluate how any impositions would affect the quality and outcome of the study before deciding to proceed or to find another site. Once a site is identified that appropriately fits the needs of the study, the researcher must then navigate the politics of accessing the site, which is discussed later in this chapter.

11.3   Common Obstacles

11.3.1   Research Approval

Access to the research site determines the fate of the study – approval increases the odds of the study moving forward, while denial has the power to kill a project. The literature (Bleach, 2016; Wanat, 2008) agrees that gaining approval and access to the research site is not a clear-cut, linear process. Approval and access are dependent on the nature and design of the study, making the process and challenges different for each researcher (Peticca-Harris, deGama, & Elias, 2016; Wanat, 2008). In essence, the approval of a research project is paramount, and if there is no approval process from a governing board, the research study incurs an insurmountable obstacle.

Initial approval to conduct research precedes access to a research site. This approval is obtained through IRBs, which are systems of ethics committees that govern research projects. IRBs use the US Federal Policy for the Protection of Human Subjects to guide their governing of research; however, IRBs form their own policies, as well (Fouché & Chubb, 2017; Musoba, Jacob, & Robinson, 2014). The purpose of the IRB is to minimize risk to participants; make sure risks do not outweigh any potential benefits; protect participants, especially vulnerable populations; make sure researchers obtain informed consent and follow appropriate procedures; and oversee the protection of participants' privacy (Musoba, Jacob, & Robinson, 2014). The IRB reviews the three ethical principles of research of human subjects, which are:

- beneficence (do not harm; amplify possible benefits while diminishing possible harms),
- respect (individuals should be treated as independent agents; persons with reduced independence are entitled to supplementary protections), and
- justice (fair procedures and outcomes; fair distributions of benefits and burdens) (National Institute of Health, 2017).

The IRB consists of a team of cross-disciplinary, high-ranking faculty and staff within the institution (Musoba, Jacob, & Robinson, 2014; Tatebe, 2015). The literature includes extensive discussions on the disconnect between IRB and action research, which creates a prolonged and difficult process for action researchers.

The essential qualities of action research result in participants becoming "co-researchers" and can also result in the need to adapt and make changes to the research plan, requiring the researchers to constantly make ethical decisions (Cunliffe & Alcadipani, 2016). This conflicts with nature of the IRB and can cause significant problems for the study, especially in the time it can take to gain approval (Musoba, Jacob, & Robinson, 2014). A particular problem for educational action researchers, as Tatebe (2015) points out, is the lack of education professionals among IRB members and the "static" application process that does not align with the dynamic process of educational action research (p. 236). Many IRB members at higher education institutions are not from the educational or practitioner realm, and consequently have very little knowledge of or clarity about action research. Oftentimes, IRB committees delegitimize the action research methodology (Osterman, Furman, & Sernak, 2013). Therefore, it is critical for those charged with overseeing these action research studies to "educate" the members of their organization's IRBs in the nuances of rigorous action research.

11.3.2 Organizational Approval

Once IRB approval is obtained, the researcher must oftentimes then gain approval from the educational site's governing board. For example, most pre-kindergarten through twelfth-grade institutions have their own research and evaluation departments. A separate entity within their own research and evaluation department is their very own IRB, many times retained as a sub-division of the

research, evaluation, and assessment offices. Members are typically chosen by the school superintendent. These IRBs do not utilize the same level of rigor as compared to those in higher education institutions, and do not meet as often. Many times, these boards rely heavily on the higher education institutions to vet research proposals for protection of human subjects, trustworthiness, anonymity, and confidentially. However, these preK-12 organizational entities do abide by and make potential researchers aware of *The Family Education Rights and Privacy Act* (FERPA), 20 U.S.C. §1232g; 34 CFR Part 99. Oftentimes, these organizations have lengthy paperwork that must be precisely completed, and the wait time for approval from preK-12 IRBs can be as long, sometimes requiring more than a month, depending on the time of year the proposal is submitted to the preK-12 IRB. There may be fees that must be paid to the organization as well. Therefore, the authors suggest that researchers should be firmly aware of the institution's research proposal procedures prior to embarking on a request with that particular institution. The authors suggest arranging a meeting or phone conversation with the IRB gatekeeper of the proposed site and asking what is specifically needed for the request. The action researcher should be mindful and considerate of the gatekeeper's time, as this is presumably not the only duty for which this person is responsible. Remember that the ultimate goal is to gain approval to do the research, so being courteous and appreciative of the gatekeeper's time will go a long way! The researcher should peruse the institution's website or documents, and if possible, obtain a copy of the institution's research proposal application prior to the conversation with the gatekeeper. This act will undoubtedly assist in expediting and narrowing questions and concerns about the application and the process. The conversation with the gatekeeper to ensure completeness and accuracy of the application will help avoid any undue hold-ups within the process of organizational approval.

11.3.3 Unfamiliarity with the Research Site

There may be instances when the researcher is new to the organization where she is proposing to do the research, when the organization is so large that the researcher does not know who the gatekeeper is, or when the researcher is an "outsider," as previously mentioned. In these situations, it is important for the researcher to find a knowledgeable ally, someone who may know and/or have a positive relationship with the gatekeeper. As earlier stated, it is important for this ally to know and understand your research mission. Thus, the ally can act as the conduit between the gatekeeper and the researcher. Prior to the first meeting with the gatekeeper – whether it is in person, by phone, or with the actual research proposal – it is important to be accurate, succinct, trustworthy, and gracious in all communications.

11.3.4 Determining the Correct Gatekeeper

For some educational organizations, there are different gatekeepers, depending on the type of action research proposed and the size of the organization. Therefore, it is imperative to contact the "correct" gatekeeper. There may be a

chain of command or an organizational chart that may or may not be explicit. It is the responsibility of the researcher to understand this chain of command. For example, if the proposed research is to be executed with special education teachers at the researcher's school, it would behoove the researcher to *first* contact the building principal prior to submitting the proposal to the school district IRB. This process will ensure that the principal is on board, prior to obtaining permission from the school district.

11.3.5   Controversial Research Topics

As the researcher reads the existing literature, narrows the research topic, formalizes the research questions, and decides on an educational field site to conduct the research, it is extremely important that the topic does not intentionally place the organization in a potentially bad spotlight. If the institution's gatekeepers believe that possible information gleaned from the proposed research will shed an unpleasant light on their organization, chances are that the action research proposal will be denied. It is incumbent upon the researcher to provide a win-win outcome scenario for the researcher and the organization. This will bode well for the approval of the research proposal. This is not to say that provocative research topics do not get approved. It is merely mentioned here as a consideration for researchers to be cognizant of when developing research proposals.

11.4   Accessing Research Sites

After an educational action researcher obtains IRB approval and organizational approval, they are guaranteed access to the research site (Tatebe, 2015). Access must be negotiated with the gatekeepers of the site, only after the challenge of identifying them. Gatekeepers are a structure that consists of those with the power to grant or deny access to the research site and participants (Clark, 2010). For example, for an IRB-approved research study that sought to examine the response to intervention (RtI) beliefs, skills, and practices of administrators, general and special education teachers, and professional support staff in a large urban school district, the gatekeepers were principals from 82 different secondary schools (Lesh, 2013). It was incumbent upon the researcher to personally contact each principal individually with the IRB and school district approvals and request that the principal forward the email with the survey link to his administrative, teaching, and counseling staff. The researcher had to rely on the follow-through of the gatekeeper, namely the principal. It was essential for the researcher to build a positive rapport with each principal.

This structure of gatekeepers varies depending on the research study and site, but usually consists of administrators and teachers. This makes it difficult for researchers to identify the gatekeepers, the differing levels of power and influence, and how to make initial contact. The number of complications a researcher faces during this phase of the process correlates to the number of gatekeepers associated with the research site (Wanat, 2008). Based on her experience, Wanat

(2008) explains that understanding "the difference between formal legal power … and informal social power" better prepares researchers for this process (p. 205). In addition, it is suggested that "conducting a reputational study to determine who has formal and informal power would have identified formal leaders with power to grant access and social power leaders with influence to cooperate" (Wanat, 2008). This would directly benefit new educational researchers, allowing them to better prepare for this extensive, ongoing phase of the research process (Peticca-Harris, deGama, & Elias, 2016).

Once gatekeepers are identified, a researcher can begin negotiations to access the site. The likelihood of gaining access depends on the gatekeepers' own interest in the research and perceptions of the researcher, the qualitative method of research, and the potential effect of the research on the gatekeeper, school, participants, or community. A useful negotiation tactic is reciprocity – clarifying the potential uses and benefits of the ultimate research findings may have significant influence on gaining access permission from gatekeepers (Clark, 2010; Wanat, 2008). It is necessary to address the potential issues and outcomes of the research study that may negatively affect the gatekeepers, the school, or participants, including legal and ethical issues. However, the challenge of negotiating access can be heightened if the researcher is at the disadvantage of having limited resources to use in negotiations. After access to the site is gained, there is no guarantee of continued access or cooperation, so it is important to develop positive relationships with gatekeepers and build an appropriate partnership (Peticca-Harris, deGama, & Elias, 2016).

11.5 Cultivating Research Partnerships

A successful educational action research study has the ability to form or strengthen an organizational partnership for further research opportunities. Kroeger, Beirne, and Kraus (2015) explain that partnerships include a multitude of people with "various levels of authority" that share experience, make decisions, and perform different roles (p. 355). Commonly, partnerships in educational action research are between schools and universities, and may be initiated by a stakeholder associated with one of the institutions or by official request from one of the institutions (Walsh & Backe, 2013). It is important to understand that developing partnerships is a process that takes time to cultivate (Edwards-Groves, Olin, & Karlberg-Granlund, 2016). According to Walsh and Backe (2013), four characteristics must be present for the partnership to be effective: "a shared conceptual understanding, mutuality in roles and relationships, sound operational strategies, and evaluation of both the partnership and its outcome" (p. 599). This means that partnership must share an understanding and application of knowledge as it affects the partnership, and must have a balance in roles and benefits, a logical plan for how the partnership will run, and assessment of the partnership to determine effectiveness and validity. Partnerships may refer to the relationships between stakeholders, as well, and must include trust, respect, and communication to grow and create an environment conducive for action research.

In addition to cultivating that shared vision and shared partnership of the research, it is important for the researcher to spend some time familiarizing herself with organizational culture, climate, and the personnel at the site(s) (Maruyama & Deno, 1992). Some activities would include observing the rituals of the site, speaking to staff and students, and taking note of schedules of events and routines. The researcher must be careful not to intrude on or deter the daily routines and schedules of the organization. Interrupting routines and schedules is a sure-fire approach to not cultivating relationships and quickly losing access to research sites.

It is important that, at this stage in the research, the researcher does what it takes to endear himself to the site gatekeeper and become familiar and comfortable with the staff and potential participants. If the researcher is able, he should try to increase the gatekeeper's and potential participants' stake in the study (Maruyama & Deno, 1992). As Maruyama and Deno (1992) state, researchers should not underestimate the influence of collective ownership of the study. Cultivating a shared responsibility creates a powerful groundswell for the researcher's study. For example, in a study examining reasons why special education teachers at the school in the study stay in the classroom over 10 years – much longer than most special educators – the researcher explained to the participants that they were co-researchers in the study and, by word-of-mouth, special education teachers continued to contact the researcher six months after the study was completed (Lesh et al., 2017). They had a strong desire to tell their stories of retention and painstakingly sought out the researcher to share their stories of special education teaching longevity.

Another suggestion for developing a positive working research relationship between the researcher and the organization is for the researcher to add additional measures to the existing research study at the request of the gatekeeper. If the organization needs to understand some concept and it is not precisely covered in the researcher's study design, it could be added in order to satisfy the organization's and the gatekeeper's needs, provided it does not influence the potential outcomes of the current project. This act provides a win-win outcome as the organization needs the information and the researcher will get more "buy-in" from the staff at the organization to participate in his study. Other options to increase participation in the researcher's study are to provide some additional support staff for participants, or a small token (e.g. $5.00 gift card for a coffee shop) of the researcher's appreciation for participation. Small gestures go a long way to cultivate positive research partnerships.

11.6   Communication Between Researchers and Practitioners

Communication goes beyond the development of partnership relationships; it is essential for cooperation and the success of the research study and occurs through various forms of repetitive, social interaction (Edwards-Groves, Grootenboer, & Ronnerman, 2016; Hawkins, 2015). Researchers must clearly communicate the research methodology, which encourages all stakeholders to

take ownership of the project (Hawkins, 2015), and what participation entails so that participants have a clear understanding of the research process and their role (Cook-Sather & Luz, 2015). Action research requires a stage of reflection, in which participants feel comfortable enough to honestly discuss difficulties, practices, and experiences in order to support the progress of the study and the partnership (Bleach, 2016; Edwards-Groves, Grootenboer, & Ronnerman, 2016; Walsh & Backe, 2013).

This level of communication is necessary for all stakeholders to perform their roles and responsibilities within the study. The lines defining roles and responsibilities for researchers and participants are blurred in action research; typically, participants are included in all aspects of research and become co-researchers. Ensuring an environment that is conducive to the type of communication necessary for action research is the responsibility of the researcher who holds the facilitator role. The facilitator is an active participant in the research. In addition, the facilitator may be responsible for promoting participant autonomy, making a working agreement with participants, ensuring the confidentiality and privacy of participants, maintaining a safe and comfortable environment, facilitating meeting and communication, and monitoring the overall process (Balakrishnan & Claiborne, 2017; Hawkins, 2015). The roles of other stakeholders – which may include gatekeepers, teachers, and students – are dependent on the nature of the research study. In most cases, the gatekeepers share the responsibility of monitoring the research process (Peticca-Harris, deGama, & Elias, 2016). They identify and introduce participants, and may provide support in gaining participant cooperation (Clark, 2010). The role of participants is that of co-researcher – creating timelines and schedules, collecting and analyzing data, deciding how the information is used, and sometimes being included in choosing methods (Hawkins, 2015). The attempt to create equality and value of roles will inevitably create power struggles, which is a common issue that researchers experience and have discussed in the literature.

Communication is an integral concept that must be fostered between the investigator, the gatekeeper, and the participants in the study. Maintaining good research relationships is essential for all stakeholders; this is accomplished by communicating effectively (Stringer, 2008, p. 34). All stakeholders must feel comfortable to ask questions, and the nature of the investigation must be made clear to the gatekeeper and participants. The quality, reliability, and accuracy of the communications have a fundamental influence on the collaborations between the researcher and the organization's gatekeeper and participants (Stringer, 2008). Based upon the research of Stringer (2008) and Healy and Welchert (1990), effective communication consists of the following:

- active listening;
- suspending judgment;
- using communication skills to fill in missing information;
- anticipating communication breaks;
- recognizing that conflicts often result from misunderstandings of communication styles;
- paying attention to one's own communication style;

- encouraging communication;
- checking with communication partners for understanding;
- seeking to understand feelings, as well as content of communication;
- visibly expressing empathy for communication partners;
- developing rapport;
- seeking to comprehend communication partners' wants and needs.

Without these tenets, communication breakdowns and research partnerships are short-term.

11.7   Participation in the Research by all Stakeholders

11.7.1   Practitioner's Participation Responsibility

While much of the onus lies with the researcher's ability to navigate and conduct the research within the institution setting, there is some responsibility on the part of the participants. Participants must be guided through the research process, must have a sense of trust, and must feel comfortable asking questions. Participants should have vested interests in understanding the purpose of the research (Maruyama & Deno, 1992). Participants should feel that they can express to the researcher when they are feeling overwhelmed or that too much is being asked of them in their part of the research. Participants should be able to explain when they are available and unavailable to participate in research activities. Lastly, participants should feel like they are valued members of the action research-to-practice process.

11.7.2   Researcher's Participation Responsibility

Although the above section discussed the need for the practitioners to maintain some responsibility in the organization's action research process, those concepts can also be construed as requirements for the researcher to make and maintain throughout the research activity. The researcher has a responsibility to provide the participants with the purpose, the rationale for the research, and a timeline of investigation activities, to create a research culture of trust, and to provide a climate where any sort of question can be asked and expressions of feeling overwhelmed can be expressed. The researcher must also construct an environment where the participants feel their contributions are valued and honored. It should be expected that participants will speak to other participants about the research; therefore, the researcher should determine if these research sidebar discussions are detrimental to the outcomes of the study. If they are deemed so, the researcher should then be sure to include this concern in the Informed Consent form when soliciting participants.

Gaining access to the organization to conduct research is not a single occurrence, but rather an ongoing process (Yin, 2016). Throughout the research process, there is a threat of losing access to the research site for a myriad of reasons; therefore, it is imperative that the investigator continues to support trust

and a collaborative partnership with the gatekeepers and research participants – in essence, with all stakeholders. The researcher must clearly explain the intent of the study to both the gatekeeper and the participants. Participants must clearly understand that the investigation is the research agenda of the investigator and not that of the gatekeeper. This understanding will determine the contribution level of the participants and the response the researcher receives. According to Yin (2016, p. 123), many of the embedded relationships generated by a multitude of situations cannot continually be circumvented. However, the researcher should try to achieve authentic transparency and be perceptive to these unavoidable situations. Participants should be very aware when they are conversing with the researcher that this communication may be used in the investigator's study. The researcher must be able to walk a very thin line between being an accepted collegial partner of the institution and a trusted researcher who is not seen as a "full-fledged" associate of the institution or group that is being researched (Yin, 2016). To avoid this difficulty, Yin (2016, p. 125) suggests regular dialoguing with an associate or researcher who is not attached to the research, the institution, or the participants in the study. Those interrogating associates should alert the researcher to possible problems or the researcher's unintentional blurring of institution affiliation.

Trust between all stakeholders is essential in gaining the cooperation and participation needed to facilitate changes in education (Edwards-Groves, Grootenboer, & Ronnerman, 2016) and is established when respect is emphasized and encouraged. According to Bleach (2016), respect requires all stakeholders to "value each other, the research, [and] collaboration" (p. 27), which requires "personal humility, perseverance, and honesty" (p. 29). A lack of respect among members of the research team can jeopardize the research project (Snoeren, Niessen, & Abma, 2011). Trust and respect are formed through communication, which is "an integrated mix of collegiality, mutual respect, discussion about one's practice, and long-term support" (Kroeger, Beirne, & Kraus, 2015). Edwards-Groves, Grootenboer, and Ronnerman (2016) agree that trust is developed from "creating an 'open and honest' and 'mutually respectful' space for participating in 'free,' 'non-judgmental,' and 'challenging' discussions" (p. 380) and is an integral part of developing "democratic and respectful relationships" (p. 373). The development of these characteristics can lead to successful relationships that can positively influence the outcome of the action research studies (Zornes, Ferkins, & Piggot-Irvine, 2016).

The investigator has the responsibility to represent herself as authentic; authenticity supports the building of trust and rapport with participants (Yin, 2016). While allowing for individual personality to evolve, it is important the researcher exude an air of professionalism while in the field. This competence connotes a serious and professional assurance to the line of action research. It is also essential that this demeanor is consistent throughout the action research agenda. The researcher's conduct should be professional, courteous, not patronizing, affable but not obsequious, and attentive to participants but not pandering to them (Yin, 2016). The investigator's choice of attire should be authentic, but not overly stated – remembering that the study is not about the researcher, but rather the information gleaned from the participants and the research in the

organization. Participation in the research is the responsibility of all educational system stakeholders; however, it is the obligation of the investigator to ensure that all concepts of the relationships are developed to their full potential and maintained throughout the entire research process.

11.8 Inclusive Procedures of Stakeholders

Frequently, investigators are on a mission to gain entry to the field, have their research design implemented in the setting, and collect their data. This so-called "take-charge" assertiveness (Stringer, 2008) is sometimes misconstrued by the practitioners in the field as using them to get the data and not really being concerned with the research site's well-being. The researcher must keep in mind that, when entering the field site, the gatekeepers and potential participants are seen as leaders in their field and are used to direct and control events, instruction, and activities (Stringer, 2008). There may be conflicting styles of leading – that is, the researcher is educated to complete research procedures in a methodical, deliberate manner, while gatekeepers or administrators are adept at making system- and building-level decisions that affect entire organizations, as well as quickly problem-solving challenging issues. The investigator must be mindful of these conflicting styles and be able to adapt and include these gatekeepers or administrators in the collaborative process. By doing so, the researcher will create an atmosphere of inclusion and mutual respect, thus creating willing participants in his study and, in addition, maintaining access to the field throughout the length of the research study.

11.8.1 Collaborative Partnerships Between Researchers and Practitioners

Collaborative relationships create a balance of power and control between all stakeholders, with focus on working as a team (Peticca-Harris, deGama, & Elias, 2016; Walsh & Backe, 2013). An imbalance of power can result in the loss of cooperation, as Kennedy-Macfoy (2013) experienced with students when her role in the classroom shifted from equal participant to the authoritative role of the teacher. This disrupted the efforts made in developing the relationship and gave more power to the students by their withholding continued cooperation (p. 491). The facilitator's role of encouraging participation, respect, and communication is key to handling power struggles that may occur (Hawkins, 2015). Involving participants in creating a research constitution and regularly assessing the balance of power will aid the researcher in avoiding major power issues. Hawkins (2015) accomplished this by routinely asking participants a series of questions: "Do you feel an equal co-researcher? Do you feel invigorated and empowered? Are we developing the critical consciousness that engenders new insights into our situations? If so, what and how? If not, how can we address this deficit?" (p. 474). This is a valuable strategy that encourages open communication through the reflection process and can be implemented across action research studies. The natural imbalance between student and adult participants

can be addressed by ensuring that students feel empowered. This can be accomplished by facilitating and encouraging the development of knowledge and skills that allow students to feel like they are equals in the research (Cook-Sather & Luz, 2015).

Power struggles that are not properly addressed can result in attempts to gain control, lack of cooperation, and the need to adjust research timelines (Wanat, 2008). If researchers understand the importance of communication and the complexities of balancing power, any impact that power struggles have on the research study can be lessened or avoided (Hawkins, 2015). Despite any efforts made by the researcher or stakeholders, issues of imbalance due to IRB-imposed requirements are out of their control. There are arguments in the literature that the IRB imposes restrictions regarding participation and consent on research studies that negate the purpose of action research, which creates a severe imbalance of power between the IRB, the researchers, and the participants/co-researchers.

11.8.2 Meeting the Needs of Both Researchers and Practitioners

Good working relationships between the researcher and all stakeholders are essential to beginning, maintaining, and completing effective, successful research studies. All stakeholders must feel included, valued, and effective in order to produce effectual, efficacious investigation results. As Stringer (2008) posits, collaborative relationships, two-way communication, engaged participation, and authentic inclusion equal positive working principles of successful action research. Mertler (2013) contends that action research and professional learning communities are two concepts that combined are extraordinarily sound. According to Mertler (2013), inclusive action research professional learning communities include the following characteristics:

- Practitioners and investigators should operate collectively as a team.
- The emphasis of the team is on a mutual issue, drawback, or objective.
- There should be a progression of synergy that motivates each member of the partnership.
- The concentration of the action research should be on constructing impetus toward more understanding of the problem, and greater knowledge and development related to the mutual issue being examined.
- Practitioners and action researchers possess a shared vision, mission, and goals.
- Practitioners and action researchers have the shared belief that collective inquiry into best practices and current reality is the norm.
- Practitioners and action researchers have the shared belief that action research *is* action oriented (learn by doing).
- Practitioners and action researchers have the shared belief that there is a culture to the commitment of continuous improvement.
- Practitioners and action researchers have the shared belief that the orientation of the action research is solution focus not identifying the problem.

While the true benefit of these inclusive, collaborative, educational action researcher and practitioner partnerships is that they investigate and create

solutions, each party may have individual outcomes that may need to be met. It must not be lost that the action researcher may be placed "artificially" (Yin, 2016) within the real-world research setting. The researcher must be mindful of common dilemmas that may occur within the practitioner setting. For example, if the researcher spends a lengthy amount of time within the institution, she may become part of the everyday real-world climate and culture of the institution. Hence, some quandaries that may occur include the promise of a promotion in the organization for access to the research site or use of the results of the action research prior to completion or publication. These dilemmas and more have been noted in many action research studies (Yin, 2016). Yin (2016) argues that action researchers must determine what they are most comfortable with and what they are willing to allow when being asked to complete quid pro quos. Yin (2016) does state there are a few "rules of thumb" an action researcher should follow:

- The researcher should avoid large favors.
- The researcher should be doing only small favors on rare occasions.
- The researcher should make it clear to others that the favor completed was a rare instance and does not happen frequently.
- The researcher should maintain an ethical deportment; therefore, no one would ask a favor contiguous on dishonesty or unprincipled behavior, or that might result in physically or psychologically damaging another individual.

Other unexpected events may occur for the researcher as she works to create inclusive, collaborative partnerships with institutions. For example, practitioners of reoccurring focus groups may feel close enough to the researcher to ask her personal questions of her opinion about the results of the study. Although it is difficult to anticipate all the possible issues, the researcher must try to anticipate possible scenarios and questions that may arise while doing research in the field. The researcher should think ahead about how she will want to answer those difficult or personal queries, and make a concerted decision as to where she will draw the line in answering such questions (Yin, 2016). Other concerns for the researcher include being asked to events, or arranging dates with possible suitors. All of these dilemmas have been noted in the action research literature. Situations such as these can put a strain on the collaborative, inclusive action research association. The researcher must prepare for possible encounters and have a plan of action to quash these instances, while still maintaining a collaborative, inclusive research relationship. Being proactive in these instances can alleviate uncomfortable, unethical, and inappropriate situations within the field setting.

While much emphasis is placed on the action researcher gaining access to the institution to conduct research, creating collaborative, inclusive research partnerships with practitioners, and maintaining those relationships throughout the length of the study, little is discussed about exiting or ending the study and the relationships. The researcher must remember that the participants are vested in the outcomes of the action research; they have built bonds with the researcher and it would be unwise for the researcher to just simply exit the field without having closure or a plan for maintaining the relationships. In many cases, the researcher may not return to that particular field when the study is completed, but to leave the participants "hanging" is not an ethical practice. A common

practice is to explain to the participants that the results, findings, conclusions, and recommendations will be shared with them once the writing is final. Some participant relationships are best left to fade (Yin, 2016), rather than the researcher executing a complete shut-off when the research is completed. The participants should not feel betrayed or "used." In addition, there may be a chance that the researcher may desire or be required to return to the same institution for future action research activity. Thus, it would behoove the researcher to not "burn bridges." There is not one perfect approach for exiting the field site for all action research projects. However, it is best when the researcher can have a plan of action for a smooth, seamless exit of the research venue.

The action researcher has a "balancing act" to complete when seeking the appropriate gatekeeper permission, entering the institution where the research will occur, cultivating collaborative, inclusive partnerships, maintaining the relationships, and then gracefully exiting the field. The researcher must remember to avoid the "take charge" approach, instead creating a climate of inclusion and collaboration among all stakeholders. All stakeholders must create synergy for a shared vision of the action research outcomes. Lastly, the researcher must be cognizant of all stakeholders' needs and he must be sure to create methods to meet those needs.

11.9 Obtaining Consent to Conduct Research

This chapter has concentrated on gaining access to the institution, common obstacles that occur while gaining access, cultivating collaborative, inclusive action research partnerships with educational settings, defining communication that elicits positive relationships between researchers and practitioners, expressing the research responsibilities of all action research stakeholders, and describing what an effective collaborative, inclusive partnership resembles. However, the authors would be remiss if the action of obtaining consent from potential participants was not reviewed, specifically with vulnerable populations, such as students with disabilities and those individuals that identify as LGBTQIA.

Codes of ethics in all fields of research require researchers to obtain informed consent from potential participants as a stipulation of approval to conduct research. The American Educational Research Association Code of Ethics standard on informed consent is extensive, and includes subsections *13.01 Scope of Informed Consent, 13.02 Informed Consent Process, 13.03 Informed Consent of Student and Subordinates, 13.04 Informed Consent with Children, 13.05 Use of Deception in Research, and 13.06 Use of Recording Technology* (AERA, 2011). The purpose of informed consent is to ensure the protection of human participants and their rights, and it requires researchers to obtain consent from all participants or participants' legal guardians, verbally and in written documentation. In this process, researchers must disclose the purpose of the research and what is required or expected from participants within the research project. The researchers must use language that participants or legal guardians will understand and must also ensure the understanding that initial and continued participation is completely voluntary (AERA, 2011). However, the inclusive nature of action research makes it extremely

difficult for researchers to inform participants of exactly what will be included in their participation (Locke, Alcorn, & O'Neill, 2013; Musoba, Jacob, & Robinson, 2014). The IRB does not consider the inclusive nature of action research with its purpose of benefitting participants (Locke, Alcorn, & O'Neill, 2013). Inclusivity is in opposition to ethical requirements that participants remain anonymous, especially when participants become co-researchers who may want to – and should – receive as much acknowledgement for the work as the actual researchers (Locke, Alcorn, & O'Neill, 2013).

The need to gain consent from participating adults causes greater controversy between action researchers and the IRB in the impact that it can have on the relationships that so much time and effort is spent on establishing. Going further, a written document may make adult participants/co-researchers feel a sense of obligation in continuing participation and contradicting aspects of the ethical codes, which require researchers to make it clear that participation is voluntary at all stages of the research process (AERA, 2011; Fouché & Chubb, 2017). Recommendations have been made to change the requirements of adult participant consent, making those who are not considered to be part of a vulnerable population exempt from formal, informed consent procedures (Musoba, Jacob, & Robinson, 2014). This argument goes further in the application to children and minors; gaining consent from legal guardians reinforces the imbalance of power and restricts the empowerment that action research seeks to instill (Yanar et al., 2016).

Children and minors, however, are considered to be part of vulnerable populations who require a legal guardian's consent to participate in research, without regard to assent or capability of making their own decision of consent (Chabot et al., 2012; Locke, Alcorn, & O'Neill, 2013). This practice has the potential to cause harm to prospective participants, as in the case presented by Musoba, Jacob, and Robinson (2014), in which a girl in foster care was excluded from participation because she did not have a legal guardian to provide consent (p. 9). Exclusion from participation for people without consent from a legal guardian extends to people with special needs. It is argued that "this marginalizes and excludes entire groups of people who could benefit from partaking in... participatory projects" (Fouché & Chubb, 2017).

Based on the work of Liamputtong (2007), some suggestions should be taken into consideration when working with these vulnerable populations:

- Provide safe space to work with vulnerable participants.
- Trust must be explicitly developed with vulnerable participant.
- Prime vulnerable participants with what will take place prior to conducting the research (interview, intervention, etc.).
- In some cases, visuals, along with auditory instructions, are best.
- Thoroughly review informed consent with participant, as necessary
- Reassure participants that they may exit the study at any time that they feel uncomfortable.
- Ensure that participants are respected and that their dignity is always at the forefront of the study.
- Exiting the field must be done with sensitivity and respect for the participants.

- Apprise the participants of their right to check out how they are represented in the study.
- Be vigilant of conceivable harms to the vulnerable participants and be ready to provide safety nets if needed.

It should be noted that some educational institutions have strict regulations when it comes to research with minors and, specifically, vulnerable populations, such as students with disabilities or mental health concerns, or those who identify as LGBTQIA. Therefore, it is beneficial for the researcher to understand the regulations of the education institution prior to proceeding to the IRB with the proposed action research study. Regulations vary from institution to institution, based on previous research projects and negative occurrences (Maruyama & Deno, 1992). Some institutions will deny access to file information – such as race demographics or assessment results – or direct access to minors and other vulnerable populations, whereas other educational organizations allow indirect access to data, and still other institutions will grant complete access, as long as IRB requirements are adhered to. If the researcher desires to work with these vulnerable populations, she must build the additional time into the action research timeline in order to account for the university IRB and to allow the institution gatekeepers to sift through and vet the proposal. If the researcher's problem is designed to investigate these populations, she should not be discouraged; however, it may be necessary to review institution regulations, build in additional time, and be persistent.

11.10   Recommendations for Creating Effective Systems That Support Action Research in Educational Settings

The authors have broached several topics and barriers to conducting action research in educational settings and discussed many bridges to assist in gaining access to those educational settings. Figure 11.1 presents an effective systems checklist for action researchers to consult prior to, during, and following the conduct of action research in educational settings.

11.11   Summary

Various educational systems and structure constructs that create successful procedures have been discussed in this chapter. To create an effective system that allows the researcher a smooth transition from studying an appropriate educational setting to exiting the educational research institution, the researcher must implement several explicit, deliberate steps. Researchers should first identify supportive educational sites that are amenable to being action research partners and then identify organizational allies that can assist with obtaining permission to do action research. The researcher then needs to ask himself if there exist any already-established relationships within the organization. If so, this will alleviate

(1) Is the education institution I have chosen amenable to action research? (Have others conducted action research in this venue?)

(2) Am I an insider at the institution? If not, do I have an institution ally?

(3) Who are the gatekeepers, those who will grant access to the participants for my study?

(4) Is there an additional institution vetting system, similar to the IRB, that I must adhere to?

(5) Have I incorporated enough time into my study to cultivate collaborative inclusive relationships and a shared partnership with the gatekeeper(s)? With the participants?

(6) Have I shared the approved IRB documentation with the gatekeepers?

(7) Have I familiarized myself with the organizational culture, climate, and personnel at the research site?

(8) Have I created a good working relationship with gatekeepers and participants? (i.e. an inclusive action research professional learning community; Mertler, 2013)

(9) Have I asked if the gatekeepers have any additional requests of the existing research study?

(10) Am I going to provide small tokens of appreciation for participating in my study?

(11) Have I clearly communicated the intent of my study, and what the shared responsibilities of my study are for the gatekeepers? For the participants?

(12) Have I created a research climate in which gatekeepers and participants can openly communicate with me? (i.e. actively listening, suspending judgment, filling in missing information).

(13) Am I maintaining a professional research approach throughout the length of the study?

(14) Have I avoided a "take-charge" assertiveness in the research process?

(15) Do I have a plan in place for unexpected events with participants?

(16) Have I taken into consideration Informed Consent questions, concerns, and needs, especially for those vulnerable participants?

(17) Have I created an exit plan for when my research is completed?

Figure 11.1 Supportive contexts for action research checklist.

one step; if not, the researcher must identify appropriate gatekeepers to grant access to the site. The investigator should identify possible organization acquaintances who can connect the researcher to the correct gatekeepers. Next, the investigator should establish a collaborative relationship with the gatekeeper.

It is important to remember that gaining access to the action research site is not just a one-time event – it is, in fact, a continuous process that is cultivated over the course of the research agenda. Building trust between all stakeholders, communicating effectively, developing a realistic timeline for the research agenda, and clearly stating research responsibilities for all stakeholders are paramount for a successful action research project. In addition, an inclusive, collaborative environment that embodies a shared vision and synergy must be fashioned by the researcher and practitioners. Finally, the researcher should take caution to create ethical, appropriate consent forms that take into consideration the proposed participants' vulnerabilities.

In conclusion, it is important that these supportive action research contexts are viewed as best practices; however, they may or may not be needed, and may or may not be regarded. Once again, each action research setting is different; therefore, all, some, or none of the supportive contexts the authors have described in this chapter may be of importance to the action researcher.

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Part III

Applications of Action Research in Practice

12

Action Research for Teacher Professional Development

Being and Becoming an Expert Teacher

Andrew Johnson

Teachers are the most significant variable in determining the quality of education students receive and the amount of learning that occurs (Darling-Hammond, 1999; Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005; Darling-Hammond & Youngs, 2002; Marzano, Pickering, & Pollock, 2001). Yet, when it comes to discussions about how to enhance learning or improve the quality of education, this most significant variable is often ignored. To make this variable even more significant, there must be continued investment in teacher professional development. Action research can be an efficient and effective method to use in this regard. This chapter will examine the following: (i) the process of becoming an expert teacher, (ii) the basics of action research, (iii) traditional professional development for teachers, (iv) strategies for developing teacher expertise, (v) proposals, products, and presentations, and (vi) effective professional development and action research

12.1 Being and Becoming an Expert Teacher

It is naïve to think that a finished teaching product can be created in four semesters of any teacher preparation program. These programs instead provide the knowledge and skills for preservice teachers to begin their journey toward being and becoming skillful professionals and, eventually, expert teachers. Toward this end, there are two necessary elements: developing knowledge and engaging in reflective analyses. As will be shown in this chapter, action research can be used to enhance both of these elements.

12.1.1 Knowledge

A body of knowledge is an essential component of being and becoming an expert in any domain (Sternberg & Williams, 2010). There are four kinds of knowledge necessary for teaching expertise: pedagogical knowledge, pedagogical content

knowledge, content knowledge, and knowledge of learners and learning (Bruer, 1999; Darling-Hammond, 1999; Eggen & Kauchak, 2007; Sternberg & Williams, 2010).

- *Pedagogical knowledge*. This is knowledge of general teaching strategies used to impart information, teach skills, or enhance learning in all subject areas. This includes strategies such as cooperative learning, expository teaching, discovery learning, problem-based learning, inquiry, universal design for learning, and various forms of multi-level instruction. Expert teachers have a toolbox filled with an assortment of these strategies that can be used with a variety of students in a variety of situations.
- *Pedagogical content knowledge*. This is knowledge of teaching strategies used to teach specific content or skills. For example, expert teachers know the best strategies for teaching reading, science, math, writing, or other content areas.
- *Content knowledge*. This is a body of knowledge related to the subject matter that is to be taught. Expert teachers have subject area expertise. For example, math teachers know a lot about math, social studies teachers know a lot about social studies, etc. This body of knowledge guides the expert teacher in deciding what is taught and in what order. Expert elementary and special education teachers often are required to have expertise in a variety of areas.
- *Knowledge of learners and learning*. This is knowledge of the learning process, learning theories, and human development as it relates to social, emotional, intellectual, moral, and personal development. Expert teachers know about their students and how these students best learn.

12.1.2 Reflection

Reflection is also a critical element in being and becoming an expert teacher (Darling-Hammond, 2008; Noormohammadi, 2014; Sternberg & Williams, 2010; Zeichner & Liston, 1996). Reflection occurs during the teaching episode in what is called "formative reflection." It also occurs after the teaching episode in what is called "summative reflection." Reflective thinking occurs on three levels. Each level is described here.

Level 1: Teaching effectiveness. Effective teachers reflect to assess learning outcomes (Porter, Youngs, & Odden, 2001; Sadker, Sadker, & Zittleman, 2008). They examine the teaching episode in order to identify those things that worked well and those things that could have been done differently.

Level 2: Research, research-based practices, or research-based theories. Decisions made by expert teachers are grounded in established theory and research-based practices (Porter, Youngs, & Odden, 2001; Stanovich & Stanovich, 2003). These teachers pause to examine their teaching practice to see if what they are doing aligns with a body of research and research-based theory related to teaching and learning. Of course, it is hard to reflect at this level if you have nothing upon which to reflect. Thus, you can see the importance of having sufficient knowledge in each of the four areas above.

Level 3: Values and philosophy. Teaching at the highest level requires that teachers pause to consider if what they are doing is in harmony with their personal

and professional values and their philosophy (Dewey, 1934). Teacher reflection at this level is based on the premise that you can identify a set of values and a teaching philosophy.

12.2   The Basics of Action Research

Action research is a type of research related to one's professional practice. In the field of education, it can be defined as the process of studying a school, classroom, or teaching-learning situation with the purpose of understanding and improving the quality of actions or instruction. In this sense, it is the ultimate form of teacher reflection.

12.2.1   Descriptors of Action Research

The following seven descriptors provide insight as to the nature of action research.

1) *Action research is systematic.* In an action research project, there is a certain amount of freedom in terms of how data can be collected, analyzed, and presented. However, it is not a type of "anything goes" methodology, nor is it simply a description of what you might think about an issue, a depiction of an interesting project or unit, or an explanation of a pedagogical method that works well in your classroom. Action research is a systematic and orderly way for educators to observe their practice, explore and solve a problem, or evaluate a possible course of action. It must be planned and methodical.

2) *You do not start with an answer.* An underlying assumption with any type of research is that you do not know what you are going to find when you start. That is, you are an unbiased observer. After all, if you had the answer, why would you be doing the research? Thus, even though you may think Method X is the best way to teach reading, it is *not* appropriate to conduct a study describing why Method X is so effective and why Method Y is so ineffective. Instead, you become an impartial observer (to the greatest degree possible), and study the effects of Method X as it is used in your classroom. The goal would then be to fully understand Method X and its effect (both positive and negative) on students' reading performance. Action research should be an honest and unbiased look at what is occurring. You would not collect data to show that a strategy *is* effective (i.e. a predetermined outcome); instead, you would collect data to see if a strategy *might* be effective and *why*.

3) *Action research projects vary in length.* The length of data collection in an action research study is determined by the question, the nature of the inquiry, the research environment, and the parameters of the data collection. For smaller action research projects conducted by classroom teachers, I suggest two weeks as a minimum length for data collection. For undergraduate students, there are some very interesting sorts of projects that can be conducted in one or two class periods. Major studies, such as a Master's thesis or an article for an academic journal, generally have a length of two months to a

whole school year. Keep in mind that if the data collection period is too short, you run the risk of presenting an unrealistic view of that educational setting.

4) *The study must be adequately planned before beginning to collect data.* Having a plan and a schedule for collecting data in place before starting is what separates a systematic inquiry from an impressionistic view. That said, it is common for plans and the type of data collected to change as the study progresses.

5) *Observations should be regular, but they do not necessarily have to be long.* The duration of observations might be anywhere from one minute to an hour or more. Many of your observations might consist of a quick note with the date and time recorded, while others might be longer and more formal. While they do not have to be long, observations must be done on a consistent, pre-planned schedule. Also, observations are only one form of data collection. There are wide varieties of data to collect, as well as forms and methods to use in collecting (Johnson, 2012).

6) *Action research is grounded in theory.* Relating the questions, results, and conclusions to existing theory provides a context in which to understand your research and a grounding that lends credibility to your results (see Section 12.2.2).

7) *Action research is not an experimental study.* In an action research project, you are not trying to disprove a hypothesis. There are no experimental and control groups or independent and dependent variables. You are not trying to generalize to a larger population. The goal is to understand what is occurring in a particular setting.

12.2.2   Action Research Steps

The steps of the action research process are described below. Note that it is a recursive process that does not always proceed in a linear fashion (Johnson, 2012; Patterson & Shannon, 1993). Thus, some of these steps may need to be repeated several times, or they may have to be done in a different order.

1) *Ask a question, identify a problem, or select a research topic.* The first step in an action research project is to decide what to study. Here, the action researcher asks a question, identifies a problem, or defines an area of interest for exploration within his or her learning environment.

2) *Set the problem or research topic in a theoretical context.* This means doing a review of the literature. Here, professional journals, books, and other professional resources are examined to see what others have found out or say about the research topic (Johnson, 2016). Relating the action research topic to current theories or research lends credibility and provides a theoretical context for your findings. This also enables the action researcher to link theory and research directly to what is happening in his or her learning environment. Finally, grounding an action research project in a solid theoretical context helps to understand the phenomena being observed.

   There are two approaches that might be taken in doing a literature review. The first approach is to do the review of the literature before collecting data.

Besides setting the study in a theoretical context, the literature might also be used to help formulate the question, refine the pedagogical method to be studied, or provide ideas for collecting data. The second approach is to review the literature as the data are being reported and the conclusions are being drawn. Here, the literature is related to each of the concluding points. As stated above, there is a certain amount of freedom in organizing an action research project. However, the onus is on the action researcher to create a credible and coherent report that is grounded in a theoretical context. Linking the action research project to research-based theories and previous research does this.

3) *Make a plan for data collection.* In a research report, this is known as methodology. Here you address the following: What data are going to be examined? How are they going to be collected, and how often will they be collected? Action research is a systematic observation; therefore, the elements of data collection must be determined *before* the research begins.

4) *Begin to collect and analyze data.* After you have identified at least two kinds of data, the data collection process begins. As data are collected, they are analyzed. If you are collecting qualitative data, you will look for themes, categories, or patterns to emerge. This initial analysis often influences further data collection by providing insight as to what sorts of things to look for.

5) *If necessary, allow the question or problem to change as data are collected.* Action research is a dynamic, ever-changing process. It is very common to change teaching strategies, sources of data, or even the focus of the study as data are being collected. This is acceptable as long as the change and the reasons for change are fully described when reporting the action research.

6) *Analyze and organize the data.* If data have been analyzed and organized as they were collected, this should be the final step of an ongoing process. In analyzing data, it needs to be established how many things were recorded in total, how many categories or kinds of things there are, and how many things are in each category. For qualitative data, analytic induction is the process that is used here (Johnson, 2012).

7) *Make conclusions and recommendations.* The next step is to interpret the data or tell what it means. Based on the data, what conclusions can be drawn? Recommendations are then made based on the conclusions. Here the research question is answered or the problem is addressed. Also, as stated in Step 2, some action researchers include their review of the literature at this point in order to set their conclusions in a theoretical context.

8) *Create a plan of action.* This is the "action" in action research. Based on conclusions and recommendations, a plan of action is created. Moreover, as the plan of action is implemented, it will need to be evaluated as to its effectiveness. Thus, the action research cycle continues.

9) *Report your findings.* This is where the facts or findings are presented, either in writing or in some form of a professional presentation. For your research to be recognized by your school or district as a legitimate form of professional development, you should be expected to produce some form of a product or performance. This could be a written report, or a scholarly paper, or some type of presentation. Ideas for these alternatives will be described below.

12.3   Traditional Professional Development
for Teachers

Traditionally, the professional development of teachers has occurred primarily in two ways: workshops or teacher inservice presentations and graduate courses in education.

12.3.1   Teacher Workshops or Inservice Presentations

The purpose of the workshop or inservice presentation is to help teachers learn new knowledge and skills and to improve their pedagogical techniques; however, these are often ineffective in this regard (Barone, Berliner, Blanchard, Casanova, & McGown, 1996; Garet, Porter, Desimonie, Birman, & Yoon, 2001; Loucks-Horsely & Matsumoto, 1999; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Quick, Holtzman, & Chaney, 2009). Here, teachers are gathered to listen to an expert describe an approach, methodology, or set of strategies that may not necessarily relate to their classroom situation, align with their teaching style, or reflect their educational philosophy (Kennedy, 2016). As well, these inservice presentations usually occur after a long day of teaching or on a busy workshop day when learning conditions for teachers are far from optimal. In addition, these traditional inservice presentations generally do not afford teachers the time or the social interaction necessary to adequately increase their knowledge or affect their practice (Birman, Desimone, Porter, & Garet, 2000, Quick, Holtzman, & Chaney, 2009). To be effective, teacher professional development sessions need to (i) be extended over multiple sessions, (ii) contain active learning to allow teachers to manipulate the ideas and enhance their assimilation of the information, and (iii) align the concepts presented with teachers' current curriculum, goals, or teaching concerns.

12.3.2   Graduate Courses in Education

Graduate education is another way of providing professional development opportunities in education. Here teachers can (i) expand their knowledge related to the theories, concepts, and skills previously learned, (ii) focus on particular areas of study, and (iii) learn new teaching techniques and methodologies. Moreover, with their new experiential knowledge base, practicing teachers can understand how to apply concepts, skills, and ideas at higher levels. However, here again, the information comes from outside the classroom or teaching situation and is not always applicable (Sprinthall, Reiman, & Thies-Sprinthall, 1996). Also, graduate education is becoming increasingly expensive, and often stops after a Master's degree has been earned.

12.3.3   A Third Way: Action Research

Action research projects can be powerful forms of professional development for teachers (Johnson & Button, 2000). In this regard, action research (i) helps teachers develop new knowledge directly related to their classrooms, (ii) promotes

reflective teaching and thinking, and (iii) expands teachers' pedagogical repertoire (Gilles, Wilson, & Elias, 2010; Hensen, 1996). Therefore, providing teachers with time and incentives to engage in action research projects and providing a platform for them to present their findings and engage in professional dialogue with peers can be a very effective and economical form of professional development (Johnson & Button, 2000).

There are two important considerations here. First, one of the goals of action research should be to link research-based theory and practice to your classroom practice. Thus, a literature review is an important part of an action research project when used for professional development. This enables you to become an expert in your topic area and grounds your action research in a solid theoretical context.

Second, action research projects conducted (used?) for professional development purposes should be shared with colleagues and others (parents, administrators, or community members). This serves to heighten the sense of professionalism and, at the same time, gets new research-based ideas into other classrooms. Sharing action research projects can take a variety of forms. These various forms are described below (see Section 12.5).

12.4 Strategies for Developing Teacher Expertise

For teacher professional development, you do not have to rely on experts to tell you what does and does not work or to explain to you what research says about something. Action research enables you to become your own expert. This section puts professional development and action research into the context of the two elements of teacher expertise described earlier: knowledge and reflection.

12.4.1 New Knowledge

This section describes how action research can be used to develop each of the four types of knowledge necessary for teacher expertise.

12.4.1.1 Pedagogical knowledge
Action research can be used to gain new pedagogical knowledge using problem-solving and analytical evaluation.

- *Problem-solving*. The first step in problem-solving of any kind is to identify a problem. This occurs when the difference between the real and ideal is perceived (Johnson, 2009). The problem in this context should be related to learning or teacher effectiveness. For example, there might be perceived deficits in student engagement, social interaction, high-level thinking, general understanding, or rates of transfer. Next, identify the current state and describe the desired state. Then, conduct a review of the literature. Here teachers look for research-based strategies directly related to the identified problem. This enables a direct connection to be made between research and the classroom. After the review has been completed, a plan of action is proposed. Teachers here

generate a list of steps or conditions necessary to get from the current to the desired state. Then, an initial plan is constructed. Finally, the plan is implemented and evaluated.

- *Analytical evaluation.* An analytical evaluation is used to analyze and evaluate new strategies that you wish to implement in your classroom. For example, you might be interested in trying project-based learning, discovery learning, inquiry learning, cooperative learning, service learning, universal design for learning, tiered instruction, problem-based learning, or using more authentic forms of assessment (Johnson, 2017). The first step is to conduct a review of the literature to get information related to the effectiveness of the new strategy, its purpose, and how it might be implemented.

Next, a question is designed to help guide the action research project. The specific question might be something like the following: Is this strategy effective? Can this strategy be effectively implemented in my classroom? What are the effects of this strategy? How is this strategy most effectively used? What will happen if I used this strategy? Does this strategy enhance learning? Or, how does this strategy work?

Then, a plan is made for initial implementation. This step works best if it is done with a pair or small group of teachers. Here, teachers generate, share, and solicit ideas for how the new strategy might be used in their classrooms. At this point, a proposal is completed (see Figure 12.1). This proposal can be used to guide the action research project. If action research is being used as a more formal type of professional development, this proposal could also be used to get approval from administration.

After the initial plans have been made, the new strategy is implemented for two weeks. Teachers then report back to the group and get feedback from other teachers. Any necessary changes are made and teachers can continue to implement and evaluate the strategy or discontinue. This is the point where a more formalized action research project can be designed. Here, teachers decide what data to collect as well as when and how often it will be collected (methodology).

Participant: Strategy:

1.   Describe the new strategy:

2.   Three things you learned from the literature review:
       a.
       b.
       c.

3.   Action research question:

4.   Initial plans:

5.   *Check-in date:*

Figure 12.1 Action research proposal for new strategies.

It is essential that a link be made between the research literature and their classroom practice. It is recommended that some form of an annotated bibliography be used as part of the report to document and describe the review of the literature. An annotated bibliography is a list of reviewed sources followed by a short description or annotation of each (Johnson, 2016).

12.4.1.2   Pedagogical content knowledge

Action research for professional development related to pedagogical content knowledge would be the same as pedagogical knowledge, above. It would involve both problem-solving and analytical evaluation; however, it would be content-specific. Questions might include: What are the best ways to teach math? What are some interesting or new strategies to use in social studies? How do students best learn how to write? What are some new strategies for teaching reading to struggling readers? How can I best help my struggling readers with comprehension? What are some strategies to use with my highly able or advanced readers?

12.4.1.3   Content knowledge

Content knowledge is never static. There are always new findings in all subject areas as well as new topics to explore. For elementary education or special education teachers, there are always new topics that can be brought into the classroom. For example, new knowledge could be used to create units of study related to geology, water treatment, or a myriad of other topics for use in science, social studies, health, and literacy classes.

In these cases, action research would be a form of secondary research project. Here, teachers would first identify exactly where in the curriculum this new content knowledge would be used. They would then identify topics or areas of study that would enhance their ability to teach within these areas. Next, this new knowledge would be gathered and organized. To document this new knowledge, a list of resources could be created (e.g. in the form of a reference list) along with an outline to represent the new information gleaned (resembling an annotated bibliography). Finally, a plan that describes how this new knowledge will be used within the curriculum should be included.

12.4.1.4   Knowledge of learners and learning

Just like content knowledge, knowledge of learners and learning is never static. New books and articles are written every year describing the latest discoveries related to human learning, creativity, intelligence, and human potential. These can be found in the areas of cognitive science, neuroscience, and cognitive neuroscience as well as education, educational psychology, and psychology. Included here would also be topics related to learning theories. Many of these theories may have been learned as part of a teacher preparation program. However, once one becomes a full-time classroom teacher, one is able to learn and apply these theories at higher levels.

In addition, learning theories can be used to enhance professional development. A theory in this context is not an unproven assumption. A theory is a way to explain a set of facts. Research is used to build the facts that create the dot-to-dot data picture, which can serve as a theory. Common learning theories include

cognitive learning theory, behavioral learning theory, social learning theory, humanistic learning theory, constructivism, Gestalt learning theory, connectivism, experiential learning theory, multiple intelligences, zone of proximal development, and the spiral curriculum. Research-based theories can be used to help us understand learning and human behavior. They can also be used to design research-based strategies and inform other types of professional practices. Using a research-based theory to support or inform a practice, approach, or strategy is called "theoretical grounding."

For professional development, teachers first identify a theory, theoretical concept, or other areas of interest or in which they wish to develop new knowledge. Then, a review of the literature is conducted to fully understand the area being studied. Next, teachers describe how the new ideas might be applied in your classroom to enhance learning. Finally, educational applications are designed and implemented.

12.4.2 Levels of Reflection

Action research can also be used to address the three levels of teacher reflection.

12.4.2.1 Teaching effectiveness

This level is most likely to be addressed initially by action researchers. Here, you examine the effectiveness of your teaching in terms of student learning or your own teaching performance.

- *Student learning.* Reflection can be used to examine student learning. The following types of questions could be asked here: Are students learning? How do you know? What are they learning? What issues might impede their learning? What big lessons are students taking from your class? What seems to be effective in terms of enhancing students' learning? What skills or concepts need additional work? How could learning be enhanced?

    Instead of test scores, students' products and performances can be used to determine or document if and to what extent the lesson purposes or curriculum objectives have been met. The following types of measures can be used here: (i) anecdotal records, field notes, or written observations; (ii) student and teacher checklists; (iii) student reflection and I-learned statements, (iv) student journals and learning logs, (v) rubrics, (vi) ratings checklists, (vii) student surveys, and (viii) student conferences.

- *Assessing teacher performance.* The second type of reflection at this level is used to examine one's own teaching performance. The following types of questions could be asked here: Are there more effective ways to teach this skill or content? Is the skill or concept being effectively taught? Why is the lesson or unit effective? What kinds of things appear to be effective? What is occurring in this class? How could one's teaching be improved? Is the pacing effective? Are effective questions being asked? How might classroom discussions be improved? Is information being presented in ways that students can understand? Are students actively engaged in the class? What are the rates of time-on-task or academic-learning-time?

For teaching performance, there are three data collecting options. First, teachers can write their thoughts and impressions on the back of the lesson plan immediately after the teaching episode or at the end of the day. Second, learning episodes could be recorded using a video or audio recorder for later analysis and evaluation. Or, third, teachers could ask a colleague to conduct a peer observation or series of observations. The lesson analysis chart in Figure 12.2 can be used for both the recorded and the peer observations. The list of characteristics or elements in the column on the left is simply a place to start a conversation about the types of things that might be found in a successful teaching episode. A discussion here among colleagues or a review of the literature would be useful in enhancing or refining this list. The column on the right is used for general observations.

To examine one's own teaching performance, teachers should review several lesson analysis charts. Inductive analysis can be used to identify the reoccurring patterns or themes that emerge. The results are then described in terms of these themes and patterns. They can also be used as topics to guide the review of the literature. (Remember, sometimes the review of the literature occurs after data has been collected.) This literature review will be used as a theoretical grounding to support the conclusion in the action research report or presentation.

Teacher: _____ Date: _____

Subject: _____ Time: _____

Time allotted: _____ Time started: _____ Time finished: _____

Key: 3 = above criterion;   **2 =** meets criterion;   **1** = below criterion;   **0** = did not meet criterion

Characteristics/Elements	**Comments/Observations**
___ 1. Teacher teaches to objective or learning purpose.	
___ 2. Information presented is organized.	
___ 3. Presentation is clear.	
___ 4. Students actively engaged during some part of lesson (questions, activities, or other).	
___ 5. Uses research-based or theory-based strategies (list on back).	
___ 6. Maximizes use of time (TOT, and ALT), minimizes down time.	
___ 7. Uses strategies to differentiate curriculum (list on back).	
___ 8. Uses a proactive approach to classroom management.	
* On the back list two things that worked well and two things to work on.	

Figure 12.2 Lesson analysis chart.

12.4.2.2 Research, research-based practices, or research-based theories

The goal here is for teachers to examine their current classroom practice to see if what they are doing and how they are doing are in alignment with a body of research and research-based theory. There are three general strategies that can be implemented:

- *Practice-to-theory*. First, teachers examine a single class or subject over time and identify the strategies being used. Then, a review of the literature is conducted to determine to what degree current teaching practices are in alignment with research-based practice. Which are supported by research? Which have limited support? How might the strategies be modified? What new strategies or practice could be included? Then, recommendations are made and a plan of action is created.
- *Theory-to-practice*. Teachers start with a review of the literature. The strategies or approaches that are recommended in the review for teaching a skill or subject area are identified. Then, the results are compared to existing practices, recommendations are made, and a plan of action is created.
- *List and document*. Teachers keep a list of the research-based strategies that are known and used. This list should include a definition of each strategy and a description of how it is used. Then, at the end of each week, the number and types of research-based strategies used are documented in a weekly planner. Teachers continue to add to their list as new strategies and derivatives of these strategies are discovered through practice or reviewing the literature. The weekly planner enables teachers to see exactly what research-based strategies are used, when, and how they are used, and then to document and quantify their use over time.

12.4.2.3 Values and philosophy

Action research projects can be designed to identify, elucidate, and then align one's teaching practices with a set of values and/or an educational philosophy.

- *Values*. Action research projects related to values focus on personal traits (dispositions) and educational experiences. For personal traits, teachers first identify those that they value or find important. Examples here include traits such as empathy, respect, kindness, self-control, positive thinking, courage, gratitude, fortitude, self-discipline, optimism, or nurturing words. Next, they look to see how these are manifest throughout the day or week. They also look to see if and to what degree their actions and interactions with students and colleagues are in alignment with their values. To do this, teachers create a checklist with a set of identified traits on it and then use tally marks to record when each trait was displayed throughout the day. This enables them to bring into consciousness those personal traits they wish to grow or enhance. It also helps them to be in alignment with their values as they interact with students and colleagues. A daily journal could also be used. To do this, teachers identify four to six valued personal traits and record how each is manifest throughout the day. Inductive analysis is then used to identify patterns that emerge as journal entries are examined over time.

Expanding one's awareness in this manner is a way of transforming consciousness. Consciousness is transformed by what is chosen to give our attention to. The Buddhist monk Thich Nhat Hanh (1998) says that both wholesome and unwholesome seeds (personal traits) are found within our stored consciousness. The wholesome seeds are used to uplift and help us transform. These are traits such as humility, self-respect, non-craving, non-anger, concentration, diligence, equanimity, and non-violence. The unwholesome seeds are heavy and imprison us. These are traits such as anger, greed, hatred, ignorance, pride, and doubt. Individuals have a choice in every situation as to which seeds receive their attention and thus, become watered. Seeds create emotional states from which thoughts arise. Thought precedes action, thus, our actions (good) are dependent on our attention. Focusing on internal states is an important part of helping people to become and be that teacher they want to be.

For educational experiences, teachers first identify the kinds of experience they value when teaching and learning. For example, is creativity valued? Open-endedness? Self-actualization? Order? New knowledge? Social interaction? Exploration? Intrapersonal connections? Real-world connections? Next, teachers examine their lessons and learning episodes to see what values are manifest. Finally, they look to see if and to what degree their teaching practices are aligned with their teaching values. Like the reflective elements above, checklists, daily journal entries, or even audio and video recordings can all be used here to help examine, record, and then document one's growth related to these kinds of values.

- *Philosophy*. A philosophy is a set of principles based on one's values and beliefs that are used to guide one's behavior. Values were defined above. In this context, beliefs are related to what you accept to be true regarding teaching and learning. Even though teachers' educational philosophy may not be clearly defined, it is the basis for everything they do as a teacher (DeCarvalho, 1991; Johnson, 2006; Moss & Lee, 2010; Walcott, 1966). It guides their decision-making, influences how they perceive and understand new information, and determines their goals and beliefs (Gutek, 2004; Petress, 2003; Winch, 2012).

Educational philosophies address the following kinds of questions: Why do we educate people? How should we educate people? How does education affect society? How does education affect humanity? Who benefits from the various types of education? What ethical guidelines should be used? What traits should be valued? What should be measured? How should we measure? What type of thinking is of worth? How should we come to know the world and make decisions? What is the educational ideal?

Educational philosophies come in a variety of forms with common, but not universal, elements included. Four of these common elements are described below:

1) *The purpose of education*. Why do schools exist in our society? What purpose do these serve? Why do our societies invest so much time and resources on educating developing humans? To what end? How does this benefit the society or group?

2) *Goals.* Based on your defined purpose, what are some short- or long-term goals?

3) *Principles.* Based on your values, what are some guiding principles or things you believe to be true regarding education, teaching, or learning? Here you should prepare a set of propositions that will serve as a foundation for your beliefs.

4) *Action statements.* Based on your purpose statement, goals, and principles, what are some action statements? What will you do or strive to do in your classroom? What might we see if we come into your classroom? What do you aspire to do or accomplish? What are some processes and practices you will adopt?

This type of reflection might be considered the ultimate form of professional development. Again, regardless of whether they are conscious of them or not, teachers' educational philosophies influence their professional practice. Reflection here enables teachers to become conscious of their educational philosophy. This, in turn, enhances their ability to align their teaching practice with their educational philosophy. Teaching from this perspective is always much more powerful and effective (Dewey, 1934; Winch, 2012).

There are four things to note about educational philosophies:

1) Educational philosophies evolve and change over time as a result of experience, interaction with others, reflection, and new knowledge – this is a good thing. If teachers believe the same things today in the same sorts of ways that they did 5 or 10 years ago, they have not grown. Even with the most strongly held beliefs, teachers may still believe them, but if they continue to evolve, they are believed at different levels or in different ways. If teachers are learning and evolving, their educational philosophy will continue to grow and evolve throughout their career.

2) Teachers must develop their own philosophy. To be of any use, teachers' educational philosophy must be aligned with their values and beliefs. (This is why it is important for teachers to identify what they value and believe.) There is no such thing as the "correct" philosophy. Effective teachers and people of good character often have differing educational philosophies. This is also a good thing as it leads to continued reflection, dialogue, and refinement. And whether it be a political philosophy, religious philosophy, or educational philosophy, forcing one's philosophy on another is the ultimate form of domination and control. These are not traits to which we aspire in a democratic society.

3) Differing educational philosophies within an educational setting are not a sign of dysfunction. These differences can strengthen a school if colleagues are able to listen and respect these differences. Differences can provide a variety of perspectives on curriculum, school issues, and other learning experiences. Varying perspectives can also be used to help create new or innovative programs, policies, and procedures.

4) Educational philosophies should be like lesson plan objectives. Just as everything that follows an educational objective should support it, every teaching practice that follows an educational philosophy should support or be in alignment with it. As stated above, teaching is always more powerful and effective if it is aligned with one's teaching philosophy.

When teachers begin to identify and elucidate their educational philosophies, it is helpful to share their ideas with other teachers. The conversations that take place here lead to the type of valuable professional dialogue that is often lacking in most schools. As well, the views of others are helpful in defining and refining one's own educational philosophy. An important starting point here is to never try to convince others of the superiority of one's own educational philosophy or the deficits in another's. Even though there may be disagreement in the most fundamental ways, unless they are harmful, all educational philosophies should be valued.

An action research project related to an educational philosophy would be for teachers to examine their teaching practice to see if, to what degree, where, and how often one or more of the elements of an educational philosophy is reflected or conflicted. Conversely, teachers could begin with an examination of their educational philosophy and then look to see if and how their practice might be in alignment with each element. The first type of action research project looks at one's practice to find alignment with one's philosophy. The second looks at one's philosophy to find support in one's practice. As well, most schools or school districts have some form of a mission statement and goals. Similar action research projects could be conducted that would examine the alignment of these mission statements and goals to school-wide policies, procedures, and programs.

12.5   Proposals, Products, and Presentations

To meet the unique professional development needs of teachers today, school districts and universities must begin to work together and think in new ways regarding graduate education and teacher professional development. Toward this end, school districts can collaborate with universities to recognize and award credit for teacher action research projects with accompanying products or presentations. This would serve to create learning that is specific to each teacher's classroom situation, enhance educational discourse, and generally improve the professional status of teachers. As well, in most states, there is a need for clock hours or professional development units for license renewals. Action research projects could also be used in this capacity.

12.5.1   Proposal

To be recognized by a school or district as a legitimate form of professional development, each action research project should be accompanied by a proposal and a potential product or presentation of some sort. A proposal would ensure the project is germane to the needs and mission of the school and meets appropriate academic standards. This proposal should be approved by administration prior to beginning an action research project.

An action research proposal could include some or all the following elements:

1) *Research question or problem.* Like any research question, this would be a specific question that could be answered by the data collected. A description

of the problem should be one to no more than four sentences that describe the specific problem to be studied.

2) *Annotated bibliography*. For the annotated bibliography, the school or district should determine the number and type of academic sources that need to be included. It is suggested that a minimum of three sources be included for smaller projects and 10–15 sources for larger projects.

3) *Methodology*. This briefly describes the data that are going to be examined, how they are going to be collected, and how often they will be collected. Include just enough information to give the reviewer a clear sense of what the project entails.

4) *Estimated start and completion date*. This provides a sense of duration. This should be considered a flexible estimate.

5) *Plans for sharing the results and conclusions*. The plans for sharing would be a description of the product or performance used to disseminate the results and conclusions.

12.5.2   Product

The product created from an action research project is usually a scholarly paper or report, in some form. Research papers or reports should contain the following elements:

1) *Problem or topic*. The problem or area of research should be described, usually in the form of a question.

2) *Literature review*. This is comprised of a summary of what the literature says about the research topic.

3) *Methodology*. This is a general description of the grade level and participants in the study. This will include the number of students, age, and the general setting or conditions. However, when doing this, be sensitive to issues related students' privacy. Describe how the data were collected. Describe the measures or materials used for collecting data, and how often data were collected. Describe the specific strategies used for instruction. Then tell how the data were analyzed, evaluated, and organized.

4) *Results or findings*. Here, the data that were collected are described.

5) *Conclusions*. Conclusions that can be drawn from analysis of the data are included here. What do the data mean? What recommendations can be made?

6) *Action plan*. This is the "so what." Described here is the plan of action that will be taken based on conclusions and recommendations.

These papers could be disseminated within the district or community or sent to state organizations and cooperative educational agencies. Scholarly articles based on action research projects could also be sent to the Education Resources Information Center (ERIC) or an academic journal for consideration for publication. As well, schools or districts committed to teacher professional development and action research could publish their own academic journal of teacher research. This would serve to disseminate the findings of individual teachers, get these ideas into the hands of all the teachers in the district, and raise the general intellectual and academic climate of the district.

12.5.3   Presentation

Presentations can also be used to share the results of action research projects. These should contain the elements described above in some form. Described below are three types of presentations.

1) *Professional conferences.* Action research projects could be presented at regional, state, and national educational conferences.
2) *School or district workshops or presentations.* Action research projects could be presented at faculty meetings or at specific times or on specific days set aside for professional development within a school or district. Instead of spending money to hire an "expert" to come in and talk with teachers, districts could empower teachers to develop their expertise and share with their colleagues.
3) *Website or online presentation.* Finally, there are a variety of ways to make professional presentations available online. These should be professionally done using PowerPoints or Prezi. Action researchers could include much of the same information as for an inperson presentation, but it would be tailored for an online audience (Johnson, 2017). Online presentations could also include descriptions, demonstrations, and modeling of new pedagogical strategies being examined. Teachers could also video record themselves implementing the new strategies in their classroom and provide accompanying instructions.

12.6   Effective Professional Development and Action Research

This chapter concludes with a description of the core features of professional development that have been shown to improve teachers' knowledge, pedagogical skills, and professional practice and their relationship to action research (Desimone, Porter, Garet, Yoon, & Birman, 2002; Garet et al., 2001; Penuel et al., 2007; Quick, Holtzman, & Chaney, 2009). Effective professional development for teachers contains the following six features:

1) *Coherence.* There is a clear connection between the professional development experience and the goals of the teacher, school, or district; or to state or national standards. Action research used for professional development enables teachers to identify the topic and make these connections. Also, having an administrator sign off on action research proposals can ensure a connection between the project and school or district goals or academic standards.
2) *Active learning.* This refers to the degree to which teachers are able to become actively engaged with the skills and concepts being learned versus passively receiving information. This active, hands-on learning can occur in a variety of ways such as reviewing student work; giving and receiving feedback; reviewing and analyzing teaching episodes (your own, those of other teachers in your school, or video-recorded lessons); planning lessons, units, and curriculum; being part of study groups, and peer coaching and mentoring. Action

research is the ultimate form of active learning in that the teacher is totally responsible for all parts of it. As shown in this chapter, action research projects invite participants to be involved in all the forms of active, hands-on learning listed here.

3) *Communication and discussion.* Teachers are able to communicate with colleagues about real issues of concern and have in-depth discussions about teaching and learning. Action research projects in which teachers work in pairs and small groups in implementing new strategies facilitate this in-depth discussion. The social learning that occurs during these episodes promotes learning at deeper levels. Also, the recommended teacher presentations and products are forms of communication that invite discussion.

4) *Time and duration.* Effective professional development for teachers involves sufficient contact hours that are spread out over time. Yoon, Duncan, Lee, Scarloss, and Shapley (2007) found that efforts that ranged between 30 and 100 hours, with an average of 49 hours, showed positive and significant effects on students' achievement. This feature is present in action research projects. The researcher is immersed in a review of the literature, discussion with colleagues, planning and implementation of the project, data collection, review and analysis, and then a presentation and further discussion with colleagues.

5) *Content focus.* The focus of the professional development is on developing and deepening teachers' knowledge related to the four areas: pedagogical knowledge, pedagogical content knowledge, content knowledge, and knowledge of learners and learning. Strategies for using action research to develop each of these were described in this chapter. And, since the knowledge to be developed would be selected by the teacher, there is a far greater chance that it will be directly related to that teaching and learning situation. Further, connecting the action research project to the literature review will also develop teacher knowledge.

6) *Opportunities for modeling, practice, and feedback.* Instead of listening to somebody describe a set of strategies, professional development is most effective when teachers are able to see new strategies modeled and then practice the strategy with feedback. All of this occurs in the various action research projects above. One of the strategies for disseminating the results of an action research project was to video record yourself demonstrating or using the new strategies within a classroom setting and share via website or other sharing venues. Also, action research that examines new strategies enables you to practice those strategies. Feedback comes in the form of peer observations and conversation or discussion.

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13

Action Research as Professional Learning for Educators
Tara Flynn and Catherine D. Bruce

How do we combine action research activity with professional learning while maintaining the integrity of both? Do they just naturally fit together? And what does this look like in the context of complex classroom environments? These questions are a constant point of reflection in our work as action researchers working in collaboration with educators. In this chapter, we describe how collaborative action research also functions as a professional learning experience, citing three illustrative examples, and elaborating on the intersection of action research and professional learning. We also discuss outcomes of the studies, and identify some of the challenges of this intersection and related strategies we have trialed to overcome challenges. We summarize with a discussion of a classroom-embedded learning model.

13.1   Introduction

Since 2007, our research program in mathematics education at Trent University (Ontario, Canada), led by principal investigator Dr. Cathy Bruce, has involved a highly collaborative approach to classroom-based research. We have worked closely with teams of teachers using models of action research, such as collaborative action research and lesson study (which is recognized as a form of professional learning and action research; see Fernandez, 2002; Lewis, 2002; Lewis, Perry, & Friedkin, 2009). As educators ourselves, we believe that educational research must be tied as closely to the classroom as possible, and always have benefits for schools, teachers, districts, and especially, students. Accordingly, this work has been designed with the characteristics of effective professional learning for teachers in mind (which we detail in the next section of this chapter), while also serving as a vehicle for data collection and research on the process itself, and on teacher and student learning in specific mathematical content areas. Our process involves working with teams of educators, often coming

together within a school district from different schools, and often with a variety of roles in supporting students (for example, while the majority of research participants are classroom teachers, teams often also include educational assistants, early childhood educators, special education teachers, administrators, and mathematics consultants and coaches).

In the work, we position ourselves not as experts, but as co-learners on the team. We are all there to work together to explore a common area of interest or a common problem related to practice (pedagogical problems, mathematical content concerns, or both). As researchers, we bring knowledge about the research process (i.e. data collection and analysis), and as researchers in mathematics education in particular, we may also bring particular content and pedagogical knowledge. The educators we work with also bring significant expertise, including in-depth knowledge of curriculum and of their students. We view the learning through this process as multi-layered, with researchers learning from teachers, teachers learning from researchers, both groups learning from close observations of student thinking, and student learning as the central focus of both teachers and researchers. In this chapter, we will discuss our extensive experience working with educators conducting collaborative action research, specific examples of these projects in the context of mathematics education research and professional learning, and related findings.

13.2   Illustrative Examples of Collaborative Action Research

Collaborative action research is defined as teachers and researchers working together to conduct research in areas of mutual interest (Bruce, Esmonde, Ross, Dookie, & Beatty, 2010; Bruce, Flynn, & Stagg-Peterson, 2011; Capobianco, 2007; Frankham & Howes, 2006; Ross & Bruce, 2012). In this chapter, we will focus on three large-scale and multi-year research projects that involved professional learning through action research. In total, these projects represent engagement in action research (with us as co-facilitators of the process) with 55 teams, involving approximately 385 teachers.

1) *The Elementary Teachers' Federation of Ontario (ETFO)-Sponsored Action Research Project.* This project was initiated and funded by an Ontario teachers' federation (ETFO), who recognized action research as a "powerful professional learning tool that allows teachers to reflect deeply on issues of their own practice" (Flynn et al., 2016, p. 9). This was a large-scale project involving more than 600 teachers on 95 teams between 2006 and 2010, in partnership with 17 researchers who supported the teams through the process of collaborative action research. From 2007 to 2010, we co-facilitated a total of 26 of these teams in six district school boards, representing approximately 130 teachers. Each team had to submit a proposal outlining an area of interest and research problem. Initially, the project was open to all subject and content areas; by the second year of the project, in recognition of the particular potential of action research in supporting teacher learning in mathematics, the

project was refined to focus exclusively on problems of practice and content areas in mathematics. The problems of practice investigated by the teams included issues in mathematics education such as student communication, teacher questioning, formative assessment, and student confidence, as well as particularly challenging areas for teachers in mathematics such as problem-solving and consolidation. Where teams selected a content focus, this tended to be number sense.

2) *The Ontario Fractions Collaborative Action Research Project.* From 2011 to 2017, we were the lead researchers in a multi-year action research project focused on fractions. This project was sponsored by the Ontario Ministry of Education, who acted as our research partner. In this case, the model for professional learning was, again, collaborative action research. Through the project, we co-facilitated 12 teams representing grades 3–12 and eight district school boards, all with the goal of investigating effective teaching strategies in fractions, while building deep content understanding with teachers and students. Pre- and post-assessment data were collected with over 1800 students over the course of the project. Resources developed through the fractions collaborative action research project were field tested in approximately 73 classrooms. Fractions was selected as the main area of focus because it is a crucial area of mathematics learning that has been identified as a chronic challenge in North America, and is notoriously difficult to learn and difficult to teach. The research has been unequivocal as to the persistent challenges students experience with fractions in the primary grades (Empson & Levi, 2011; Moss & Case, 1999), through the junior years (Armstrong & Larson, 1995; Kamii & Clark, 1995), and through secondary and post-secondary education (Orpwood, Schollen, Leek, Marinelli-Henriques, & Assiri, 2012). Fractions are, of course, an essential aspect of number sense, but are also foundational to or connect with many other areas of mathematics. For example, success in fractions is a known predictor of success in algebra (Brown & Quinn, 2006; Empson & Levi, 2011). Understanding of fractions is also essential to understanding probability (Clarke & Roche, 2009), and involves high levels of both spatial (Mamolo, Sinclair, & Whiteley, 2011) and proportional reasoning (Moss & Case, 1999). A solid foundation in fractions, then, is necessary for access to higher mathematics, and a shaky grounding can limit later opportunities in school and careers. Researchers have noted that there is "a great deal of agreement that learning rational number concepts remains a serious obstacle in the mathematical development of children" (Behr, Harel, Post, & Lesh, 1992, p. 296). Within the area of fractions, the teams researched representing, ordering, and comparing, as well as unit fractions, and operations with fractions including addition, subtraction, multiplication, and division.

3) *The Math for Young Children Project (M4YC).* This is an ongoing area of research that was launched in 2011 with the goal of investigating young children's mathematical and spatial development. To date, the Trent University research team has worked with 17 teams of educators representing kindergarten to grade 2 in two district school boards and two independent schools. In this project, we used a lesson study model for professional learning, which has been recognized as a form of action research. Lesson study is a

model of professional learning that originated in Japan and has been recognized as particularly powerful for teacher learning in mathematics education (Lewis, Perry, & Hurd, 2009). It involves cycles of inquiry in which teachers "enact, observe, and discuss an actual classroom lesson" (Perry & Lewis, 2017, p. 35). In our model of lesson study, we emphasize co-planning, implementing/observing, debriefing, and refining exploratory lessons as a way of continually gathering data on student thinking throughout the process (Bruce, Flynn, & Bennett, 2015). Data collection for this project has included pre- and post-task-based interviews with approximately 1020 students. The impetus for researching mathematics in the early years was sparked by research findings from a series of large-scale studies beginning in 2007 that demonstrated that early mathematics performance is a better indicator not only of later mathematics performance, but of overall school success on a host of metrics – and is a better predictor of later reading success than early reading performance (Duncan et al., 2007). Importantly, further research is showing that it is actually the *gains* that children make in the early years of school that are a more precise indicator of later mathematics success (Watts, Duncan, Seigler, & Davis-Kean, 2014). We also became urgently focused on young children's spatial reasoning, due to a body of work showing that young children's spatial reasoning is a key predictor of mathematics performance (Verdine, Golinkoff, Hirsh-Pasek, & Newcombe, 2014) and that it is malleable across ages and gender (Uttal et al., 2013). While the important connection between mathematics and spatial reasoning has been an established fact in the world of the cognitive sciences for decades – such that researchers Mix and Cheng write that it "no longer makes sense to ask whether they are related" (2012, p. 206) – this has been slow to translate to the world of mathematics education. The National Research Council (2006), for example, describes spatial reasoning as a "blind spot" in education, pointing out that it is "extensively relied on across the K–12 curriculum but not explicitly and systematically instructed in any part of the curriculum" (p. 7). Researchers point out that, given the demonstrated connection between mathematical and spatial performance, "we can expect that spatial instruction will have a 'two-for-one' effect, yielding benefits in mathematics as well" (Verdine et al., 2014, p. 13). But because of its status as an "'orphan' of the academic curriculum" (Newcombe, Uttal, & Sauter, 2013, p. 45), little is known about what a mathematics instructional approach that focuses of spatial reasoning might look like, or the ways in which it supports children's mathematics learning. Given the age of the children in this project, we have always taken a playful approach to pedagogy. Areas of mathematics that we have explored through a spatial approach with these teams have included: composing and decomposing 5 and 10, number lines as thinking tools, patterning and algebra, 2D and 3D geometry, measurement, mapping and coding, and perspective taking.

The relatively large scale of these projects in the world of educational action research allowed us the opportunity to conduct mixed-methods studies, collecting some types of quantitative data alongside qualitative data. For example, in the

ETFO collaborative action research project, we were able to administer a survey to a sample of participating teachers from the larger project on teacher efficacy and beliefs about mathematics teaching. As a second example, in the fractions collaborative action research project, we collected pre-post student assessments from most participating classrooms over the six years of active research (approximately 1800 students). Finally, in the Math for Young Children project, our research design involves conducting pre- and post-task-based interviews with samples of children from participating classrooms. We acknowledge that there may be some discomfort or even outright disagreement in the action research community over this collection of quantitative data in what is largely a qualitative paradigm. However, the opportunity afforded us a chance to gain some valuable insights into to the impacts of action research at a larger scale than is usually possible.

13.3 The Relationship between Action Research and Professional Learning in an Ontario Education Context

13.3.1 The Action Research Process

In each of the three contexts described, whether identified as collaborative action research or lesson study, we followed a very similar structure for professional learning. Educators were provided release time to meet as a team for between five and seven days over the course of a few months or an entire school year. Generally, we have found that these meetings should be punctuated at regular intervals, with only three to six weeks between meetings when possible, to maintain momentum and accountability as a team, so a shorter and more intense time frame is preferred. The release time is crucial to ensuring that the team has dedicated time to work together during instructional time, when it is possible to go into classrooms together to try out instructional designs and tasks.

The action research literature has thoroughly mapped out the cycles and activities of action research, including process models, so we will not do so here in much detail except to highlight a few aspects of the process that have been particularly relevant to our work. We have generally followed a classic action research process, including: (i) finding the problem and developing research questions; (ii) collecting baseline data and selecting intervention strategies; (iii) trying out the intervention(s) and collecting data; (iv) measuring the impacts; and (v) mobilizing findings and resources. In the teacher resource on action research that was developed following the ETFO project, *Learning through Teacher Research: A Guidebook for your Action Research Journey*, the five phases of action research are described as: (i) ponder the problem and pose the inquiry question; (ii) peruse the research and plan the action; (iii) pursue your plan and collect your data; (iv) probe, analyze, and interpret the data; and (v) pause, reflect, and share your findings (Flynn et al., 2016).

When we meet as action research teams, our days follow a general structure: debrief between session implementation, summarize our current thinking, plan forward (a new exploratory activity or task) based on what we have found, try the task with students, debrief the exploratory task and make refinements to the instructional design. Teachers exit the meeting, armed with the co-planned task(s), with the expectation that these be implemented and documented in their classrooms between sessions. This between-session activity has been shown to be a crucial aspect of the learning (see Bruce & Ladky, 2011). Teachers then bring their documentation (in the form of observational notes, student work samples, or photos or videos of student work/thinking) with them to the following session. These artifacts become catalysts for reflection and discussion during our initial debrief at the next session. As a team in those discussions, we want to learn about what happened in classrooms and how students responded to the intervention between sessions. If we are working in a mixed-grade group (as is often the case), we will often chart these responses to look for trends or trajectories of learning across the grades.

As mentioned above, with whatever model for professional learning we are working (collaborative action research or lesson study), our process follows a similar structure. The exception is that in lesson study, our final day is a culminating activity in which the educational research community is invited to participate in observing a research lesson. The public research lesson is characteristic of lesson study – in Japan, it is the central feature of the professional learning activity (Doig & Groves, 2011; Lewis, Perry, & Murata, 2006). In our variation of this model, the public research lesson maintains its status as a consolidating activity, but is not the main emphasis or driver of the model. We emphasize continuous opportunities for situated learning throughout the process in the form of what we call "exploratory lessons" (Bruce, Flynn, & Bennett, 2015) – the public research lesson is positioned as one more exploratory lesson, with our guests from the wider educational community invited to take part as honorary members of the research team. We ask them to help us with observations, which are structured with the use of observation guides developed by the team based on targeted areas of interest such as the use of language or gestures. This invitation rests in the spirit of Japanese lesson study, which Stigler and Hiebert (1999) have described as an opportunity for teachers to see their practice "with new eyes."

The practice of co-designing, implementing, and observing exploratory lessons is common across our work with teams, whatever model we are following. These shared observations of student learning are essential to the learning process. They constantly remind us of our shared purpose – that of student learning. They cement our trust as a team as we work together doing what we all care deeply about. They provide a shared experience that keeps our work dynamic and lively, and gives us a common point for reflection. Regularly enacting exploratory lessons as part of the process means that our learning is *situated* in the context in which the design is implemented and leads to refinements of our instructional designs. According Lave and Wenger's (1991) seminal work, situated learning occurs within communities of practice at the site where the learner will be performing the activity and is accordingly embedded within that

context. The learning is not transmitted from one person to another, but socially co-constructed through participation, as well as through mechanisms of observation and discussion. In these respects, lesson study ably demonstrates the power of situated learning and affirms that its context-embedded nature drives the learning in meaningful ways.

Moreover, multiple opportunities to implement the co-designed lessons *in situ* (both together as a team within sessions and separately in respective classrooms between sessions) lead to a process of refinement, which causes action research to intersect with design research (see Bruce, Flynn, Moss, & Ross, 2011; Flynn, Bruce, Bennett, & Yearley, 2014). It is crucial to make these refinements because, as seminal design researchers Collins, Joseph, and Bielaczyc (2004) point out:

> Designs in education can be more or less specific, but can never be completely specified. Evaluation of designs can only be made in terms of particular implementations, and these can vary widely depending on the participants' needs, interests, abilities, interpretations, interactions, and goals. (p. 17)

The more opportunities for designs to be implemented in different contexts, the more data we have for improving the designs and understanding the types of responses they evoke from students, and the better our refinements become.

13.4   Characteristics of Professional Learning that Overlap with Action Research Structures

In their recent study, *The State of Educators' Professional Learning in Canada*, Campbell, Osmond-Johnson, Faubert, Zeichner, and Hobbs-Johnson (2016) conducted a comprehensive investigation of professional learning practices in Canada. Their study included pan-Canadian data from all ten provinces and three territories. The researchers examined "promising practices," as well as challenges in the Canadian context. Based on their extensive review of the literature, the study authors developed a comprehensive set of characteristics of effective professional learning, which includes: (i) quality content (that is evidence-informed, subject-specific, focused on both pedagogical content knowledge and student outcomes, and that balances teachers' needs and system goals); (ii) design considerations for teacher learning and subsequent implementation (to ensure active and varied learning opportunities, as well as opportunities for collaboration and job-embedded learning); and, (iii) support and sustainability factors (to ensure that it is of a sustained duration, is supported by leadership, and that available resources such as release time are provided).

These criteria are consistent with earlier studies such as Hill's 2004 study, which highlighted that effective professional learning must be: inquiry-based, focused on student thinking, collaborative, job-embedded, content- and pedagogy-focused, teacher-driven, and sustained over time. The important

contributions of Campbell et al. (2016) to this picture include the emphasis on evidence-informed practice, the need to balance "teacher voice and system coherence" (which takes into account the bigger context of system goals), as well as on the need for "supportive and engaged leadership" (p. 3). In their study, Campbell et al. (2016) found that teachers expressed the need to learn to support diverse student needs as a top priority for their pedagogical and content-focused learning. They also found that sufficient time to engage in sustained learning was a need, and noted inequitable access to such opportunities across systems. They concluded that job-embedded doesn't necessarily mean exclusively school-embedded, as "opportunities to engage with external colleagues and learning opportunities matter also" (p. 3).

Recognizing the importance of external factors such as supportive leadership and the availability of resources such as release time, we see collaborative action research as a model that addresses all of the criteria for effective professional learning in every category. Collaborative action research allows us to take an evidence-based approach, and to focus intently on content that is at once deeply subject-specific and focused on pedagogical concerns. Because teachers are guided to focus on problems of practice identified by the team (even when the general subject area is already chosen in the context of research, such as was the case with the fractions study), and because it is situated in the school and classroom context, it provides active and dynamic learning opportunities, attuned to teachers' realities as well as teachers' and students' needs. It is collaborative. In our framework and design, we have prioritized shared classroom experiences, but because the work also involves bringing educators together from different school sites to form a team (and we revolve our sessions between participating team members' school sites), this ensures a balance between school-embedded learning opportunities and opportunities for collaboration and learning across educational contexts and with a variety of peers. In the case of lesson study where the public research lesson involves a day of collaboration with additional invited guests from the educational community, this is especially amplified. Guests may include other teachers from participating schools, from other division/grade panels, but also from different schools and even boards, as well as other researchers who act as discussants. This experience allows for rich cross-pollination of ideas and experiences in the discussions around the mathematics learning context. Finally, it is sustained over a period of months (or, as in the case of some of the individuals or even whole teams we have worked with, for a period of years), allowing for iterative cycles of inquiry focused on problems of practice (Yearley & Bruce, 2014).

13.5   Impacts and Benefits of Action Research

The relatively large scale of these action research projects provided unique opportunities for data collection to measure the impacts of action research. In this section, we share some of these findings related to both teacher and student outcomes in the three action research projects discussed in this chapter.

13.6   Teacher Confidence and Reflections

In the ETFO collaborative action research project, researchers were interested in gathering data on the impacts of participation in action research on teacher self-efficacy. Teacher efficacy refers to the teacher's belief that she or he is able to positively influence student learning. Teacher efficacy is of interest because research has indicated a correlation between high teacher efficacy and high student achievement (Ross, 1992, 1998; Woolfolk Hoy & Davis, 2006). There is also evidence in the literature showing that efficacy is related to effective teaching practice; for example, teachers with high efficacy tend to persist with challenging teaching strategies in addition to a broad range of strategies, and to set higher goals and have higher expectations for themselves and for students (Bruce & Flynn, 2013; Ross, 1998; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

The data collection in this study involved 185 teachers participating in the project, who completed the pre- and post-survey. The instrument used was a research-validated survey tool that measured three dimensions of teacher efficacy: *teacher efficacy for student engagement*, *for developing instructional strategies*, and *for classroom management* (Tschannen-Moran & Wolfolk Hoy, 2001). Analysis revealed increases in teacher confidence across all three dimensions – all indicators of high teacher efficacy. These increases were especially strong for teachers who participated on teams that (i) focused on content-specific learning and (ii) engaged in rigorous data collection and analysis strategies (Bruce & Flynn, 2013; Ross & Bruce, 2012). Interestingly, the effects were stronger for teachers who participated in a second year of the action research study, causing researchers to hypothesize that these impacts may amplify with continued involvement in and experience with action research.

Following analysis of qualitative data for the fractions study, teachers reported on their experiences engaging in collaborative action research through a post-program survey. Teacher reports consistently indicated that participation in collaborative action research was beneficial, both for their learning about pedagogical strategies related to fractions teaching, and for their own content learning in this difficult area of mathematics. For example, in the surveys from the 2016–2017 year of the study, 94% of respondents ($n = 17$) reported that participation in action research strongly supported their professional learning about fractions teaching. In the same survey, 94% of respondents also strongly agreed with the statement "the project supported my growth in my own mathematics content knowledge."

Educators' responses to open-ended prompts acknowledged key learnings from the project. As in previous years, educators commented on an increased precision in pedagogical practices and content knowledge (e.g. recognizing the importance of the unit fraction as a powerful building block, and having developed the ability to identify and respond to student needs). A consistent theme in the open-ended responses indicated that this learning had positive impacts on teacher confidence in teaching fractions. For example, one teacher reported:

> I came into this project with an admittedly limited understanding of fractions myself, which made the idea of teaching fractions a daunting task. This project has provided me with a solid base understanding of fractions,

a toolbox of strategies and resources to use in my classroom, and a greater confidence and even an excitement to jump into fraction instruction. (Educator-researcher respondent #17)

Other responses indicated that this impact on confidence in a daunting area of mathematics instruction made participation in collaborative action research a particularly powerful professional learning experience:

This has been my favorite professional learning I've done so far in my career. I feel like I bloomed as a math teacher and my students witnessed it happen. I have always been confident in math, but still insecure about being a teacher, but this has reminded me that I am an amazing math teacher and I can embrace that! A student said to me recently, "I feel like everyone's best subject is math, probably because you are such a good math teacher." Last year, I do not think that comment would have been made. Fractions are something that a lot of students and teachers have feared, so to be able to conquer that learning is huge. The confidence in fractions carries over to every strand of math! (Educator-researcher respondent #6)

Several teachers discussed how the learning extended beyond the specific fractions concepts. For example, one respondent shared:

I'm increasing my understanding of how fraction models underpin or support other concepts – for example, students began to see how number lines were like scales on axes. How area models were just two-dimensional number lines, how number lines could be used to solve other proportional reasoning problems, etc. (Educator-researcher respondent #1)

We posit that because the process of collaborative action research allows us to explore mathematics and related pedagogies in a manner that is both broad and deep, there is a "spillover" effect – that is, while we may focus on one particular content area of mathematics, the nature of the professional learning intersects with other areas of mathematics such that teachers are able to make deep connections across content areas.

13.7 Student Learning

While our focus in this chapter is on teacher professional learning, it is important that research on models of professional learning attempts to measure the impact of these opportunities on students and student learning. Since one of the primary purposes of professional learning is to help teachers better support students and student learning (arguably *the* primary purpose), research on professional learning models needs to be informed by data on student outcomes. In both the fractions collaborative action research project and the Math for Young Children project, we have collected intensive student data in the form of pre- and

post-assessments. The student results from these two projects (student data were not collected in the ETFO collaborative action research project) are reported below.

13.7.1 Student Learning Results from the Fractions Collaborative Action Research Project

In this project, pre- and post-assessments were administered by the participating classroom teachers each year. In total, approximately 1800 students completed assessments from 2011 to 2017. In analyzing the results, we looked at the calculated effect sizes based on the difference between pre- and post-scores using Cohen's *d*. Effect sizes measure the degree of change between pre- and post-results by calculating the difference between the two means, then dividing that number by the pooled standard deviation for the data:

$$d = \frac{M_{post} - M_{pre}}{SD_{pooled}}$$

Cohen (1988) gave guidelines for small, medium, and large effects: a small effect size is 0.2, a medium effect size is 0.5, and large is considered 0.8. In Hattie's 2015 study involving 1200 meta-analyses related to student achievement, he found that the average effect size over 196 areas of intervention on student learning was 0.4. As Hattie explains, since most interventions yield at least some positive results, it is insufficient to ask whether there is a positive result; it is important instead to look at the magnitude of change. In this study, 0.4 appears to be a valid marker for average change, so in addition to considering Cohen's guidelines for interpreting effect sizes, we were also interested in results above this marker.

Analysis of the results of the fractions student pre-post assessments to date have shown strong results indicating overwhelmingly positive benefits for students. For example, in one research site involving students from grades 7–12, analysis of student pre-post results (n = 127) revealed an effect size of d = 0.78 – a large effect size according to Cohen's guidelines and well above Hattie's 0.4 average. In another research site, again with grades 7–12 students (n = 152), the effect size for pre-post change was 0.96 – a very large effect size. In another sample of 387 students in the study, the effect size was calculated as 0.92. In the two latter cases, effect size calculations indicate that students increased their post-test scores by almost one full standard deviation from their pre-test scores. These gains provide compelling evidence for the effectiveness of collaborative action research for student learning, as well as a promising practice for professional learning for teachers.

13.7.2 Student Results from the Math for Young Children Project

In the Math for Young Children project, the young age of the students made it most appropriate to conduct one-to-one interviews with students. These interviews are conducted with a sample of students from participating classrooms (with samples selected in collaboration with the teacher, and in consideration of

a range in terms of gender as well as perceived ability). Tasks conducted with students include a range of spatial and numeric tasks. In total, approximately 1020 students have participated in the task-based interviews.

To date, analyses have been conducted by research site, with analyses showing positive results. For example, in one site where the team focused on linear and area measurement, 37 students who participated in the interviews made statistically significant gains (showing medium to large effect sizes) on Key Math assessments of measurement and numeration (see Table 13.1; Bruce, Flynn, & Bennett, 2015).

Shown in Table 13.1 are the following: a medium effect size (0.58) in numeration and a large effect size (1.05) in measurement for JK students (junior kindergarten, the first year of full-time public school in Canada – generally ages 3–4); a large effect size (1.16) in numeration and a medium effect size (0.63) in measurement for SK students (senior kindergarten, the second year of full-time public school in Canada – generally ages 4–5); large effect sizes in both numeration and measurement for grade 1 students, and; a medium-high effect size (0.71) in numeration and a medium effect size in measurement (0.66) for grade 2 students. All results are well above the "average" effect size of 0.4 as measured by Hattie. The medium and high effect sizes in numeration are particularly interesting because the group was not focused on number sense in the collaborative action research, and researchers are continuing to look for spillover effects into number sense that may result from a particular focus on spatial reasoning in mathematics.

In another research site, where teachers were focused on early algebraic thinking (e.g. the concept of equality), students also showed gains in the Key Math Numeration assessment. Table 13.2 shows effect sizes in the medium-large range for students in all grades, solidly above the average of 0.4 as measured by Hattie.

These data samples indicate that teacher participation in collaborative action research has benefited student learning in mathematics across a range of grades and content areas.

Table 13.1 Key math-3 mean pre- and post-test raw scores by grade and related effect sizes.

Grade (n)	Numeration subset			Measurement subset		
	Pre-test mean	Post-test mean	ES[a]	Pre-test mean	Post-test mean	ES[a]
JK (n = 8)[b]	5.25	6.38	0.58	3.38	7.00	1.05
SK (n = 7)[c]	5.57	7.71	1.16	3.71	5.00	0.63
1 (n = 12)	7.75	10.17	0.76	5.25	9.17	1.14
2 (n = 10)	11.40	15.00	0.71	10.00	13.50	0.66
Grand mean[d]	7.78	10.19		5.84	9.08	

[a] Effect size: Cohen's *d* expressed as an absolute value, 0.5 is a medium effect size and 0.8 is a large effect size.
[b] JK: junior kindergarten, the first year of full-time public school in Canada (generally ages 3–4).
[c] SK: senior kindergarten, the second year of full-time public school in Canada (generally ages 4–5).
[d] Grand mean was calculated as a weighted mean to provide an overall score for all students combined.

Table 13.2 Key math results in the numeration subset, divided by grade.

Grade (*n*)	Numeration subset				
	Normed means[a]	Pre-test mean	Post-test mean	Mean pre-post change (gain/+ or loss/−)	ES[a]
JK (*n* = 13)[b]	N/A	3.62	5.31	+1.69	0.77
SK (*n* = 21)[c]	10.2	6.19	7.57	+1.38	0.53
1 (*n* = 14)	9.6	10.00	12.29	+2.29	0.56
2 (*n* = 17)	10.0	13.35	14.76	+1.41	0.49
Grand mean[d]		8.37	10.02	+1.65	

[a] Effect size: Cohen's *d* expressed as an absolute value, 0.5 is a medium effect size and 0.8 is a large effect size.
[b] JK: junior kindergarten, the first year of full-time public school in Canada (generally ages 3–4).
[c] SK: senior kindergarten, the second year of full-time public school in Canada (generally ages 4–5).
[d] Grand mean was calculated as a weighted mean to provide an overall score for all students combined.

13.8 Challenges and Strategies

We consider action research to be "an emergent process of progressive problem-solving focused on practice and knowledge creation" (Bruce, 2017, p. 690). Collaborative teacher-researcher work in classroom and school contexts is known to be extremely complex (Davis & Sumara, 2009). Beyond the three parallel layers of participant learning (student, teacher, and researcher), there are documented issues of power dynamics (Bradbury & Reason, 2006; Rapoport, 1970), resource intensity, and maintaining momentum (Locke & Hawthorne, 2017) during the action research cycles. Over the period of working on these three large-scale collaborative action research projects, we have identified a set of ongoing challenges and some strategies that help to facilitate forward movement with joint research. Here, we describe some of the main challenges we have encountered and some of the strategies we have developed to help mitigate these challenges.

13.9 Acknowledging Challenges that the Group is Facing

When we are working closely with teacher colleagues, there are bound to be roadblocks, or challenges, to the process. We have found it helpful to name some of these challenges as a team by asking participants to identify issues they think we will be facing during the action research cycle and for the group to discuss these throughout the process. For example, we often have teachers express concern or insecurity about their own ability to conduct an action

research project. They may also have doubts about whether the research team possesses sufficient understanding of classroom realities and student needs in order to support their work. These kinds of concerns are often at the heart of a person's reluctance to participate or take risks in their learning. It is only within a trusting learning environment that these will be shared and "worked on." As such, when researchers relay their fears about themselves as it relates to the project work, we have found that this begins to establish trusting relationships. We also express our concerns, for example, about having to trust the action research process as a model that can help us learn together, knowing that it feels so slow at the beginning while we work on describing our problem and finding our research questions. We wonder if we are facilitating the work of the group too much or not enough. Throughout the action research cycle, there will be moments of vulnerability for each member of the group if the action research is genuine, so it is important to acknowledge these challenges as they arise, to name them, and to accept them as being valid.

13.10 Resource Intensity

Collaborative action research is resource intensive. A very common challenge that collaborative action researchers face is a scarcity of time. In our three projects described in this chapter, we ensured that there were funds for teacher release time so that the teacher participants could engage in the action research. The funding for teacher release time was secured through our partnerships with the teachers' federation, the ministry of education, and through school board partnerships. These partners committed funds to pay for the supply teachers required during meeting days. In our experience, if researchers can facilitate partnerships that honor and fund teacher time through release from their usual daily responsibilities for meeting dates, the level of professionalism, follow-through, and commitment rises. The vast majority of teacher participants report that they are grateful for the release time and that it legitimizes their action research activity.

Nonetheless, it is important to recognize that, even with release time, most teachers have difficulty managing time away from the classroom for meetings because teachers must plan lessons for while they are away, in addition to collating materials for the research meeting. This adds an additional burden on teacher time. Recently, one of our action research teams has elected to have some of their meetings during the regular work day and some of their meetings after school hours, in order to balance out the demands from students in the classroom with their action research work. The team is treating the full day meetings as an opportunity to reflect, report on between-session activity, and plan units of study in mathematics that address research problems the group has identified, while the after-school meetings will be used to focus on mathematics content learning and related mathematics tasks. Exploring these types of models requires flexibility and a willingness to experiment for both researchers and teachers in the group.

13.11 Power Imbalances and Politicized Contexts of Action Research Professional Development Models

Many action researchers have characterized action research as a political act (Noffke, 1997) aimed at improving conditions. Indeed, the origins of action research were clearly sociopolitical in nature (Feldman, 2017). In some recent contexts, however, action research has essentially been appropriated and mandated to address school improvement agendas of raising standards (Feldman, 2017). In these cases, the leaders of the professional development programs, cloaked in action research nomenclature, hold the balance of power firmly in their hands. The tensions that emerge in these contexts thoroughly compromise the goals and potential of action research as a self-directed professional learning activity (Jones & Stanley, 2010). In our experience, the mandatory and calculated programming of action research renders it ineffectual. This is something that teachers and researchers must resist together.

In localized collaborative action research contexts where teachers are driving the research focus and the interventions or actions that are being taken, researchers must nonetheless be extremely conscious of the potential power position that they hold, and should explicitly try to reduce power imbalances that can arise between teachers and researchers. Researchers hold knowledge about research methods, but teachers hold equally important knowledge about their schools and classrooms, and critically important, they hold the knowledge of their own students and curriculum. Some strategies we have identified and used to limit power imbalances involve reminding all members of the team of their assets that they bring to the table, roundtable debriefing, ensuring shared air-time, and ensuring that teachers are fully engaged in the development of data collection strategies (at both the teacher and the student level), and analysis of the data.

13.11.1 Sharing Assets of the Team Members

Every member of our collaborative action research teams brings specialized knowledge to the table. Initially, most participants do not perceive that they have assets that will further the work of the group. This makes sense for a number of reasons. First, participants join a group to "dig into" or work on problems they are facing. They don't already have solutions, and are feeling that they need more help than that which they can provide to the group. Second, participants are accustomed to professional development models where there is no baseline sharing of participant strengths and experiences – rather, educators and researchers attend large group meetings and presentations where the agenda is pre-set and the audience is expected to listen and learn. Third, the perception that researchers are the experts and holders of knowledge can create a power imbalance, and leave teacher participants feeling like their professional knowledge is insufficient. To uncover participant assets, we ask participants to describe their prior experiences and what makes them interested in engaging in action research. Invariably, this initial team-building strategy reveals tremendous depths of knowledge in many forms. This initial conversation sets the stage for an asset orientation, both to members of the collaborative action research team as well as in our work with students.

13.11.2 Round Table Debriefing and Shared Air-Time

At each meeting, teachers and researchers share their observations of between-session activities. At these debriefing discussions, each participant is given the opportunity to describe what actions they took ("What between actions did you take?"), what surprises they had ("What did you observe and what surprised you?"), and related implications ("How did these surprises affect your actions, your observations, and your thinking?"). In providing each member of the group sitting around the table the opportunity to speak, each member of the team can offer insights to the group for collective knowledge generation. A special note for facilitators of collaborative action research is to ensure that every participant has the opportunity to contribute, and that unnecessary commentary from the facilitator between each comment has potential to interrupt that knowledge creation.

13.11.3 Shared Development of Data Collection Strategies and Analysis

In our action research cycles, the teachers and researchers co-plan short tasks that can be implemented in one-to-one, task-based interviews so that we can learn more about student thinking in a very detailed process. These tasks are aimed at the specific areas of focus and/or problems identified in the action research process. At times, researchers implement the task-based interviews with students while the teacher observes, while at other times it is the reverse (the teachers implement the tasks while the researchers observe). In some cases, we also videotape the student task-based interviews for later co-analysis. Given time restraints for the teachers, in some cases, the researchers will identify a set of video clips from student task-based interviews that might be of particular interest to the teachers. These video segments are selected based on interest expressed by the teachers and researchers during the task-based interviews ("What did we find interesting, surprising, or concerning? What do we need to look at more closely?"). As a group, we can review the video clips to help make instructional decisions and to inform the action of our collaborative action research. This is an important form of data analysis. Teams of action researchers in our projects have also designed scoring systems for task-based interviews to help them classify types and/or levels of responses.

Empowering one another in the team is at the heart of collaborative action research. As one of our teacher-researcher participants explained, "Because the action research is self-initiated, and we have choice about the learning, you are invested and eager. As you are working with other interested and invested teachers, the growth is exponential!" (Flynn et al., 2016, p. 9).

13.12 Maintaining Momentum

With extended action research projects – particularly those that are longer than five or six months for a cycle – there may be challenges in terms of maintaining momentum. With all of the competing demands that members of the group face,

there may be the tendency for the group to lose some momentum. To address this challenge, we have developed three key strategies. The first is to punctuate the meetings so that they are far enough apart that the team can engage in the actions of their research. We have found that monthly meetings (approximately four to five weeks apart) works best for our teams.

The second key strategy is to ensure that each member of the team has substantive in-between session "homework" or "actions" and that each meeting includes an extended opportunity to discuss and debrief the actions taken, observations, and what the team members learned by taking these actions. The insights from these discussions are often summarized by the researchers and/or the teachers to help determine next steps for students and for the collaborative action research group. Once a norm for taking up the in-between actions has been established, then participants are much more likely to maintain their momentum with the work, and there is accountability built into the group, which increases participant investment in the process as well as trust in the members of the team. A third key strategy we have developed is to schedule the final meetings closer together in a deliberate attempt to intensify the depth and action of the group as they near completion of the action research cycle. The team seems to rally together (i) for the last push with actions, refinements to the actions, and reflections, and (ii) to develop publishable materials that summarize findings from the action research (in the form of lesson study guest packages, final reports, and web-based video stories, for example).

13.13   Scaling Up for Broader Impact

Action research in education is typically small in scale, with individuals pursuing problems of practice or small groups of educators working together to pursue a common area of interest. Collaborative action research tends to increase the group size as researchers join directly with teachers, and there may be different people from several sites coming together to engage in action research cycles together. The powerful work that occurs in these settings and that intersects squarely with professional learning has caused us to consider whether there are benefits to scaling up the work even further for broader impact. However, we do not believe that having large-group professional development sessions and information fairs would be true to the collaborative action research processes and goals, and we have thought creatively about structures that enable local problems to be the driver of teamwork, while involving many educators and students, in the interest of finding ways to increase the reach of collaborative action research.

Because we wanted to see if models of collaborative action research could work not only with a single group of educators but with multiple teams simultaneously, we approached our action research with two things in mind. The first is that we must maintain the integrity of action research characteristics and keep the process intact. That is, the process of jointly identifying our education problems, finding the related questions, developing actions to address the problem, observing the effects of these actions, and reporting on our findings as a legitimate and professional form of educational research must be maintained.

The second is that we develop structures for moving from work with one team to multiple teams with integrity. A structure that has enabled up-scaling without losing integrity of the research and quality of the joint-work is to use *shadowing*. This involves bringing one team together as a trailblazing "first" group. At that site, we ensure that multiple researchers and educational leaders are part of that team. One or two experienced collaborative action research facilitators lead this trailblazing team, while the others join the discussion periodically, but also observe and note the flow and content of the meeting. Those researchers and educational leaders who are not facilitating the meeting then move on to work with different small groups of educators shortly after the trailblazing "first group" meeting. The notes and observations made in the first group help researchers to prepare for what might come up at the subsequent groups they facilitate. These researchers/educational leaders also make notes of facilitator moves that they might use to ensure open dialogue, trust, and shared ownership of the problems that teacher-researcher teams are facing. We believe that this shadowing process has helped to build capacity of researchers and educational leaders to carefully and astutely facilitate group learning in other collaborative action research sites.

13.14   Discussion

In this chapter, we have outlined three large-scale and sustained collaborative action research projects in mathematics education in Ontario, Canada. We have seen benefits for teacher content knowledge, pedagogical knowledge, and confidence/efficacy. We have identified challenges along with strategies and considerations that we have found important with respect to dealing with the challenges in our work, such as ameliorating real and perceived power imbalances, attempting to scale up work without sacrificing the depth or breadth of the learning experience (or teacher agency in the process), and maintaining momentum in the complex school environment and in the face of competing priorities and demands on teachers' time. All of these experiences – and data – lead us back again and again to the importance of maintaining collaborative action research as a classroom-embedded learning process. When the process is designed with mechanisms to ensure that the learning is situated in the context of the classroom (Lave & Wenger, 1991) – and is always grounded in students and student learning – the power of the process is amplified. Figure 13.1 presents a conceptualization that shows how teacher learning through collaborative action research can be continually grounded in classroom observations and student learning.

   The learning space includes the classroom, as well as opportunities to meet and debrief outside of the classroom to dig deeply into matters of both content and pedagogy. The line represents the collaborative work of the team, which dips in and out of the classroom: designing, testing out exploratory designs in the classroom (either together as a group or between sessions in individual classrooms), debriefing those observations, and refining our thinking as well as the designs. In collaborative action research, we are continually goal setting, and refining those goals based on our observations and data collected in the class-
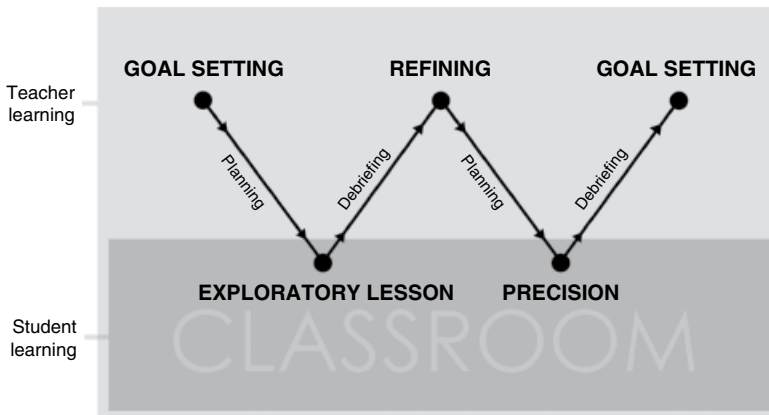
Figure 13.1 Situated learning in collaborative action research (the "W" model).

room. The model accounts for student learning, which occurs (for our intents and purposes in this discussion) in the classroom, as well as teacher learning, which occurs within the classroom and in the space around the classroom as well, throughout the collaborative work of the team. When the classroom is our touchstone, and we are able to dip in and out of it in the context of our professional learning, we keep momentum because we are always in contact with the urgency and primacy of supporting student learning. Team members have increased accountability – to their students and to one another. Momentum is maintained, as is relevancy.

Collaborative action research is a challenging process that requires commitment, collaboration and supportive partnerships, and time. Our experiences – and our data – have shown us again and again that it is a powerful model for professional learning that is worth the commitment for both teacher and student learning.

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14

Action Research as Inquiry in Professional Practice Doctoral Programs

Ray R. Buss

In this chapter, we consider the application of action research (AR) to the development of inquiry skills for students participating in professional practice doctorate (PPD) programs. Among other things, we consider the utility of AR for those participating in PPD programs who are and will continue to work in professional settings such as business, information technology, engineering, nursing, education, and so on. The needs of those who work in various professional disciplinary areas have been shown to be quite different from those who pursue the PhD (Levine, 2005; Maxwell, 2003; Park, 2005; Scott, Brown, Lunt, & Thorne, 2004; Shulman, Golde, Bueschel, & Garabedian, 2006; Winter, Griffiths, & Green, 2000). Those in PPD programs have required the development of inquiry skills that are directly applicable to their workplace settings rather than developing research skills suited to constructing theory and conducting research to develop new knowledge (Levine, 2005; Park, 2005; Scott et al., 2004; Shulman et al., 2006; Winter et al., 2000).

The focus of this chapter is on using AR to develop inquiry among students in PPD programs. After setting the stage with some definitions of terms, the chapter focuses on the need for solid inquiry skills, characteristics of AR that make it appropriate as a means for developing inquiry skills in PPD program participants, and how AR is used to develop inquiry skills in a PPD program, before a chapter summary with some conclusions about AR as a means of develop inquiry.

14.1 Setting the Stage

Before we move on to providing a rationale for using AR in PPD programs and illustrating how it has been implemented in one PPD program, we will set the stage by defining and clarifying some important concepts used in the chapter. Specifically, in the following sections, we define how we used action research, inquiry as practice, and professional practice doctorates for this chapter.

14.1.1 Action Research

For the current situation, AR has been defined as being research that is focused on the more pragmatic, practitioner-oriented approach, which was appropriate for those leaders working in professional practice settings (see Buss & Zambo, 2016). In this approach, practicing professionals typically engaged in a collaborative endeavor with colleagues or students, but the professionals took the lead on the AR work, which was focused on resolving some problem of practice from their workplace settings. In that sense, the work was typically not participatory action research. Nevertheless, the AR described here with respect to being applied in professional practice settings had a strong collaborative component and a decidedly "insider" focus to it (Herr & Anderson, 2015). Moreover, the AR described here was intended to be implemented in such a way that it provided opportunities for PPD students – that is, working professionals – to examine a problem from their workplace setting by taking action using repeated cycles of inquiry (Buss, 2018a; Mertler, 2017; Mills, 2014).

14.1.2 Inquiry as Practice

For this chapter, we have used a definition of "inquiry as practice" based on one developed and used in PPD programs associated with the Carnegie Project on the Education Doctorate (CPED). On their website, CPED (n.d.) defined inquiry as practice in the following way:

> Inquiry as practice is the process of posing significant questions that focus on complex problems of practice. By using various research, theories, and professional wisdom, scholarly practitioners design innovative solutions to address the problems of practice. At the center of inquiry as practice is the ability to use data to understand the effects of innovation. As such, inquiry as practice requires the ability to gather, organize, judge, aggregate, and analyze situations, literature, and data with a critical lens. *(CPED, n.d., para. 10)*

The definition of "inquiry as practice" (CPED, n.d.) certainly serves as a strong point of departure for beginning our consideration of it.

To amplify on the concept of inquiry, consider that in this chapter, inquiry as practice includes developing a new perspective or position with respect to one's practice. Specifically, inquiry as practice is regarded as applying various research skills and personal, professional practice knowledge to develop solutions to problems/issues in the workplace setting. Further, inquiry as practice involves the implementation of an intervention/innovation to remedy the problem, concomitant data collection, and systematic data analysis to assess the effectiveness of the innovation/intervention.

Developing inquiry as practice in PPD students has been challenging, at least initially. Although practitioners intuitively have recognized the need to engage in inquiry in their practices, generally, they may not have done so for various reasons. First, they may not have had the tools to do so. For example, they may

have lacked the skills to introduce systematic inquiry into their practices, including limitations with respect to skills associated with collecting data or, more likely, analyzing it to use to improve their practices. Second, they may not have developed the habits of mind necessary to carry out systematic inquiry. These habits of mind include thoughtful consideration of a problem, review of the literature related to the problem, development and implementation of an intervention/innovation, and collection and assessment of data to determine the effectiveness of the intervention. Third, they may have viewed the whole research process as being too large in scope for them to conduct the inquiry process effectively. Thus, helping PPD students understand that using AR as an inquiry process can be learned over time in smaller increments has been an essential feature, which makes AR so powerful as an inquiry approach in PPD programs.

14.1.3   Professional Practice Doctorates

PPDs have emerged over the past 30 years to meet better the needs of professionals who wanted to obtain a terminal-level degree, but who desired to remain in their professional workplace settings, improving their practice rather than pursuing a career in the academy or in traditional research settings (Maxwell, 2003; Park, 2005; Scott et al., 2004; Winter et al., 2000). Moreover, limitations of the PhD with respect to meeting the needs of working professionals – which have been amply discussed in the literature – provided additional impetus for the development of PPD (Levine, 2005; Park, 2005; Scott et al., 2004; Shulman et al., 2006; Winter et al., 2000). For example, Scott et al. (2004) described the emergence of PPD degrees such as the Doctor of Business Administration (DBA), Doctor of Engineering (EngD), and the Doctor of Education (EdD) as ways to meet the demands coming from practitioners in various professional disciplines and from governments to ensure a highly educated workforce and the development of leaders for important areas of professional practice. Similarly, other PPDs have been developed, including the Doctor of Nursing Practice (DNP), Doctor of Architecture (DArch), Doctor of Public Health (DPH), Doctor of Information Technology (DIT), and so on. Notably, these PPDs were seen as appropriate alternatives for those working in architecture, nursing, business, educational leadership, and other professional disciplines (Carboni & Proper, 2009; Manathunga, Pitt, Cox, Boreham, Mellick, & Lant, 2012; Park, 2005; Perry & Imig, 2008; Shulman et al., 2006; Walker, 2008; Winter et al., 2000). Thus, PPD degrees have arisen and prospered in the United Kingdom, Australia, and the United States in response to the need for practitioners to develop research skills applicable to workplace settings and reflective procedures suitable for their contexts, and to enhance leadership skills appropriate to their professional practices (Maxwell, 2003; Park, 2005; Scott et al., 2004; Winter et al., 2000).

  PPDs have arisen for two principle reasons. First, doctoral programs have been required to "take on" new roles to provide capable professionals with training in the skills, methodologies, and reflective abilities expected of those individuals who serve as leaders in career and workplace settings (Park, 2005; Walker, 2008; Winter et al., 2000). Thus, a new emphasis on skill development has arisen, as compared to the focus on creating new knowledge, which was the

major objective of doctoral preparation in the past (Park, 2005). Second, Manathunga et al. (2012) cogently argued that doctoral programs must prepare "employment ready" graduates who can "take on" and resolve problems or issues in their workplaces.

To meet this need to augment the skills of workplace leaders, faculty members working in PPD programs, along with their students, have situated their efforts at the intersection of the profession, the workplace, and the university (Lee, Green, & Brennan, 2000; Park, 2005). As a result, PPD programs have (i) featured preparation directed toward applied skills and knowledge; (ii) focused on connections between theory and practice; (iii) promoted reflective and critical thinking about practice; (iv) emphasized research in the workplace; and (v) respected and utilized the knowledge and viewpoints of practitioners (Bourner, Bowden, & Laing, 2001; Lester, 2004; Maxwell, 2003; Park, 2005; Rolfe & Davies, 2009; Winter et al., 2000). As noted in later portions of the chapter, AR has provided affordances to capitalize on students' professional knowledge from their workplace settings and combine it with research and technical skills learned in the program. Thus, PPD students learned and developed skills to meet their needs for examining problems in their workplace settings, developing an intervention/innovation and implementing it, and gathering data and analyzing it to assess the effectiveness of the intervention/innovation.

In their discussion of PPD programs, Willis, Inman, and Valenti (2010) identified several important characteristics that established PPD programs as being different from traditional doctoral programs. In their summary of PPD characteristics, Willis et al. suggested, "PPD programs focus heavily on the skills, knowledge, and expertise needed to practice a profession" (p. 26). Moreover, they noted, "coursework, research, and field work are more integrated and connected in PPD programs" (p. 25). Taken together, Willis et al. suggested PPD programs prepared students for work in their professional practices.

14.2   On the Need for Developing Inquiry as Practice Among PPD Students

Consistent with the unique needs of students in PPD programs identified by those writing about second-generation doctoral programs, Shulman and his colleagues (2006) articulated concerns about the mismatch between inquiry or research preparation and career needs of those in PPD programs. The authors claimed PPD students were prepared as traditional researchers, rather than developing inquiry skills more appropriate to their roles as professionals and practitioners. As a result, Shulman et al. asserted inquiry and research skills must be better matched to career demands and requirements. Moreover, to be useful in their practices, inquiry skills learned in PPD programs must be connected to practice in consequential ways. By providing opportunities for PPD students to engage in inquiry in their practices during the program, PPD programs authentically connected inquiry and practice.

To cope with these concerns, Shulman et al. (2006) identified four important outcomes for PPD program participants to ensure they were well prepared to

engage in inquiry and guarantee they provided more effective leadership in their workplaces. First, Shulman et al. claimed PPD candidates should use their practice contexts as "the equivalent of some combination of residency clinical setting [like medical students] and an experimental laboratory or field site" (p. 29). Thus, PPD program participants should be afforded opportunities to implement their emerging inquiry skills in their workplaces as they apply what they have been learning in their courses. Second, Shulman and his colleagues asserted PPD program participants should be engaged in practice as they participated in PPD programs. Specifically, they stated, "P.P.D. candidates would be required to have a certain amount of prior and ongoing practice experience" (p. 29). Shulman et al. claimed this approach would provide for richer doctoral study because PPD students would draw upon practice to inform their work in the PPD program.

Third, Shulman et al. (2006) suggested students in PPD programs needed to acquire research-related skills such as being "able to read, *very* critically, and analytically, research reports … have the skills and experience necessary to evaluate such reports … to enable practitioners to make practice and policy decisions" (p. 29, italics in original). Thus, similar to those in other doctoral programs, PPD students would be expected to develop skills that would allow them to critically evaluate research and consider its application to their workplaces. Finally, Shulman and his colleagues affirmed, "the P.P.D.-holder should be skilled in carrying out local research and evaluation to guide practice" (p. 29). Such an outcome is especially relevant given the focus of the current chapter and has implications for the development of inquiry skills for those participating in PPD programs.

14.2.1   Implications for Inquiry in PPD Programs

Taken together, the work on second-generation doctoral programs, Willis et al.'s (2010) work, and Shulman and his colleagues' (2006) specific writing on the PPD suggest there are a number of aspects that must be taken into consideration as inquiry skills are developed in PPD program participants, as follows: (i) featuring inquiry preparation directed toward applied skills and knowledge; (ii) offering inquiry that promotes reflective and critical thinking about practice; (iii) emphasizing and fostering inquiry in the workplace; and (iv) fostering inquiry skills that afford students (and graduates) opportunities to conduct local research and/or evaluation to guide their practices. By situating inquiry in practice, PPD programs can assist students to connect inquiry with practice and create powerful learning circumstances in which students learn and practice inquiry skills during the program and apply them subsequently throughout their professional careers (Buss, 2018a).

14.3   A Rationale for Using AR to Develop Inquiry Skills

In our work with students in our PPD program, we observed students initially considered AR "to be somewhat troubling because of being steeped in more traditional post-positivist perspectives or because of a lack of preparation in the fundamentals of research in any fashion" (Buss & Zambo, 2016, p. 144; see also

Buss, Vasquez-Robles, & Paredes, 2013; Buss, Zambo, Zambo, & Williams, 2014). Nevertheless, PPD students quickly recognized the usefulness of AR and its practicality when applied to inquiry in their workplace problems. Consistent with the practical aspects of AR, in the next section of the chapter, we discuss the characteristics that make AR so appealing to develop inquiry among PPD student/practitioners.

AR has demonstrated it is an appropriate framework for guiding inquiry because it is extraordinarily flexible and functional. In particular, 14 characteristics of AR have made it appropriate for use by students in PPD programs. The 14 characteristics described here were an extension of earlier work by Buss (2018a; Buss & Zambo, 2016). The characteristics have been presented in Table 14.1.

14.3.1 Affording Adaptability to Contexts and Problems

As noted in the first characteristic, we have found AR to be readily adaptable to a variety of contexts and problems associated with those contexts. These problems ranged from classroom to school and/or organizational issues. For example, students in our PPD program have conducted AR on classroom issues such as second language learning, STEM (science, technology, engineering, and mathematics) matters, literacy, and so on in the K-12 school setting. Other students have conducted AR projects that affected change at school sites or focused on district issues. For example, some students have focused their work on improving a failing school, conducting teacher assessments more effectively, and retaining underrepresented high school students. Finally, at the higher education level, other doctoral students have employed AR procedures designed to assist students in making the transition from community college to the university, preparing faculty members to employ flipped learning during college instruction, and developing new programs or advising processes to foster retention of undergraduate students. Thus, as was evident in the various applications above, AR has

Table 14.1 Fourteen useful characteristics of action research for PPD programs.

Action Research has exhibited the following useful characteristics ...

- adaptable to various contexts and problems associated with those contexts;
- serviceable with respect to operating with limited resources;
- compatible with smaller- or larger-scale improvement/change efforts;
- functional in terms of collaboration with colleagues;
- serviceable (in terms of being adopted by students) because of its simplicity and utility;
- appropriate with respect to affording opportunities for reflection on action and practice;
- functional in allowing students to ease into inquiry/research efforts over time;
- flexible with regard to trying out and changing the intervention as necessary;
- serviceable in terms of seeing immediate results and collecting data to inform the next step;
- compatible with respect to developing systematic inquiry over time;
- flexible for use with various research procedures;
- sustainable within the program and after it because of its problem-solving-based nature;
- manageable with respect to scaffolding student preparation/work by faculty members;
- overall, appropriate to the needs of PPD students/practitioners.

been highly adaptable to a variety of workplace problems emanating from various contextual settings.

14.3.2   Being Compatible with Limited Resources

Second, AR has been compatible with limited resources. Typically, students in PPD programs have very limited resources available to them. Thus, our doctoral students have implemented their research efforts using the resources that are easily accessible to them. For most students, that meant their time and little else. As a result, AR was ideal in this circumstance because it was readily adapted to the resources at their disposal. Notably, AR's compatibility with limited resources made the AR process suitable for use during the program and for continued research beyond the program throughout their professional careers. Because we expected our graduates to continue to implement their AR efforts beyond their participation in the program, we have found AR to be consistent with this desired outcome, as well.

14.3.3   Accommodating Projects of Different Scale

Using AR has been shown to be compatible with projects that varied in scale. AR in our program has been conducted in small- and large-scale settings with equal effectiveness. For instance, in one smaller-scale study, Morrison (2015) explored the effectiveness of an intervention where she worked with 22 students in her junior- and senior-level English classes at a small, rural high school to co-construct college-going capital. She implemented these AR efforts to supplement the school's limited college-access services and overcome a long tradition of non-post-secondary participation, geographic isolation, inadequate college preparatory course availability, and limited access to college and career counseling. The supplemental approach blended the grade-level curriculum with college preparation activities and college-level reading and writing assignments. The supplemental content focused on the US education system and its attendant college-access inequities. Data from student surveys, student and researcher journals, interviews, and class dialogic discussion transcripts indicated students' participation in the augmented college-going English classes developed their college-going skills, knowledge, self-efficacy, and critical literacy (Morrison, 2015).

By comparison, Lindsey (2015) carried out a much larger-scale study, as she examined the effectiveness of a technology infusion professional development support system that was used to assist college of education methods course instructors as they taught digital citizenship (DC) employing four online DC modules she had developed for use by students. The content of the DC modules was comprised of copyright/fair use, digital footprint/social media, acceptable use policies, and responsible student behavior. The modules were delivered to students using a flipped learning format. She provided training and support to five instructors who were knowledgeable about course content and pedagogy, but not about DC. After receiving training about the modules and their content, the instructors included the modules in their instruction in their methods classes, part of the teacher preparation program at her institution. She gathered

interview and other data from three technology infusion specialists who provided training and support to the instructors and interview data from five methods course instructors. In addition, she obtained quantitative data from 113 students who were taking the methods courses, interview data from 36 students who participated in focus groups, and classroom observations of the discussions that occurred about materials from the DC modules. Results from the quantitative and qualitative data indicated the technology infusion support system was effective in aiding instructors to deliver the material in a successful, meaningful way to students. Further, these students, who were prospective teachers, demonstrated significant increases in their intentions to promote and model DC in their future classrooms.

14.3.4   Supporting Collaboration

AR has been functional with respect to PPD students' collaboration with colleagues. Typically, PPD students' problems of practice have required them to conduct their AR efforts with others in their workplace settings because of the nature of the problems and the fact that colleagues often shared the same or a similar problem related to their practice. For example, PPD students from higher education contexts have typically worked with staff member colleagues, whereas K-12 teachers and principals have usually collaborated with other teachers or administrators in their local contexts. As noted above, PPD students have "eased" into AR, and importantly, they have also "eased" colleagues into the action research process. Further, colleagues have normally collaborated because they have shared the problem of practice identified by their PPD student colleague.

For example, Thibault (2017) collaborated with teacher educators to infuse English as a Second Language (ESL) instructional strategies into social studies methods courses to prepare better teacher candidates for teaching of K-8 ESL students. She employed a professional development program and a coaching model to accomplish these efforts. Thibault met regularly with the teacher educators and provided professional development on ESL instructional strategies, observed their teaching, and provided feedback and coaching on their efforts.

14.3.5   Affording Utility

AR has been shown to be serviceable in terms of being adopted by students because of its simplicity and utility. Because AR has been articulated as a simple, four-step process that includes (i) studying and planning, (ii) taking action, (iii) collecting and analyzing data, and (iv) reflecting of the data (Mertler, 2017; Mills, 2014), it has great appeal to students. PPD students have found the AR model to be easy to understand as they consider research approaches for their practice settings. Moreover, PPD students have prized the tremendous utility of AR in their professional practice settings because it is readily applicable to problems in their professional practice settings.

14.3.6   Offering Opportunities for Reflection on Action and Practice

Considering the AR process outlined in the previous section, specifically in step iv, PPD students have been afforded opportunities to reflect on their AR efforts and the outcomes. Consistent with the skills PPD students/practitioners desired to develop (see this chapter, Section 14.1.3 on PPD programs) this reflection step has been a natural part of the AR process. Thus, the AR approach afforded many occasions for reflection that informed their professional practices.

14.3.7   Easing into Inquiry/Research

Using an AR approach has provided students with opportunities to ease into inquiry/research efforts over time. Specifically, students received opportunities to engage in their inquiry/research work in smaller, more manageable efforts because they carried out their AR work in cycles over the course of the program. For example, in one cycle of AR, students have conducted a preliminary implementation of their intervention; whereas in another AR cycle, they may have honed their data collection instruments. By continuing with such AR cycles across time, students have developed a remarkable and rich understanding of their workplace problems, intervention, and their instruments for assessing the effectiveness of their intervention efforts. Additionally, as their inquiry/research skills improved over the course of the program, students were inspired and motivated to build on their AR efforts. Thus, when they attempted their dissertation work, they had already gathered and analyzed data and built skills and efficacy required to conduct the dissertation work and to continue their research efforts beyond the program.

Results from a study conducted by Buss and Avery (2017) supported the notion that AR allowed PPD students to ease into research over time. The researchers examined how end-of-first-year students in an EdD program were developing professional identities as educational leaders and educational researchers. Quantitative and qualitative data revealed that perceptions changed substantially with respect to development of leadership skills. Notably, students' perceptions of their research skills grew at even faster rates. Qualitative data showed end-of-first-year students indicated their program changed them professionally and that they had developed *emerging* (i) research skills, (ii) research reflective capacities, and (iii) confidence in their abilities to perform as educational researchers in their workplace settings. Moreover, qualitative data also indicated students "tried out" leadership and research skills in their workplaces as they took action to develop these skills. With respect to developing their leadership and research skills in their workplace settings, enacting these provisional efforts was consistent with the notion of *possible selves or provisional selves* whereby individuals try on identities, which they practice on a trial basis and reformulate over time, as they become more accomplished (Ibarra, 1999; Markus & Nurius, 1986; Oyserman & James, 2010).

14.3.8   Affording Flexibility of Implementation

The AR process has provided great flexibility with respect to implementing and revising the intervention as necessary, based on the most recently gathered

data. One of the greatest strengths of the AR process has been its adaptability at the point of implementation. When data have indicated the intervention has not been working in the manner or to the extent that was anticipated, the AR approach has afforded doctoral students opportunities to adjust the intervention to improve its effectiveness. Unlike more traditional research approaches, AR has allowed graduate student researchers to make mid-course corrections based on comparing the desired outcome versus what the current data have suggested. This has been a particularly powerful aspect of AR given that doctoral students who were "new" to the research process frequently were seeking the ideal intervention and might otherwise have hesitated in initiating their research efforts. Additionally, early or mid-course corrections of the intervention have saved time and provided better data for determining the next steps in the AR process. Further, because of the cyclical fashion in which AR was implemented, students have used each cycle to shape and sharpen their AR efforts, including their interventions, data collection, and data analysis procedures.

14.3.9 Informing Next Steps

AR has been serviceable in terms of doctoral students' seeing immediate results and collecting data to inform the next step. By its nature, AR has provided affordances for conducting research in small, manageable cycles. Thus, AR allowed student researchers to break the problem of practice into more achievable parts from which action researchers can obtain results very quickly. Moreover, focused data collection, analyses, and reflection on data have informed PPD action researchers about the successes of their interventions and have provided information about possible next steps in the AR process. Notably, because of the close connection between actions carried out in the AR process and the high information value of data resulting in those situations, PPD action researchers have found themselves to be positioned "in the middle of the process at all times," which supports refinement of their practice efforts as they work on their workplace problem.

14.3.10 Developing Inquiry over Time

AR has been effective with respect to developing systematic inquiry over time. Because AR steps were small, logically related, and natural, doctoral students have readily accepted them and have taken ownership of them over time. For example, Buss, Zambo, and Zambo (2017) found graduates of an EdD program continued to apply AR to their practice-based problems including "transferring" the AR inquiry approach to "new" problems in their workplace settings. Thus, the methodical instruction and application of AR over the course of an academic program has fostered development of a systematic approach to dealing with work-based problems that has continued across time and settings. As a result, AR has fostered ongoing use of research skills after completion of the program, a primary objective of doctoral education.

14.3.11   Providing Flexibility for Research Procedures

Various procedures have been used for gathering data about the effectiveness of the AR intervention/innovation employed by PPD students. Given the typically small samples that have occurred in PPD students' efforts, "triangulation" of the data has become more crucial. Triangulation has referred to gathering multiple kinds of data to ensure interpretations that were more credible have been made (Creswell, 2015; Mertler, 2017; Mills, 2014). Thus, for example, students using AR in PPD programs have gathered data from surveys; pre- and post-intervention performance assessments; interviews; documents; artifacts; participant or researcher journals; observations; focus groups; and so on. Further, AR has been amenable to gathering quantitative and qualitative data and notably to mixed-method approaches, which have been quite useful for students in PPD programs.

14.3.12   Offering Sustainability

AR has shown that it was sustainable as PPD students conducted work leading to their degrees and afterward in their workplaces. Because the AR process capitalized on building on the previous AR cycles, PPD students readily adopted it since results commonly revealed complexities of the problem, which were addressed in the next cycle. Additionally, because subsequent cycles built on previous ones, PPD students' motivations to use AR were considerable. Sustainability was fostered among PPD students during the program and was evident among graduates. For example, PPD students who had completed one year of a PPD program indicated they perceived themselves as more accomplished researchers than when they had begun the program (Buss & Avery, 2017). Students claimed their efforts at "trying out" the AR process affected their perceptions of themselves as researchers. Notably, in other research on program graduates, Buss et al. (2017) examined the sustainability of AR in their professional workplace settings, including whether and how graduates continued to use AR. Results from interviews indicated PPD graduates' AR work had affected and continued to shape their workplaces. Further, although some graduates continued their AR efforts in the area related to their dissertation work, many others had "moved on" and used AR to explore and remedy "new" problems/issues in their workplaces.

14.3.13   Providing for Scaffolding of Instruction

Faculty members have been able to scaffold their AR instruction to afford students more manageable inquiry as practice learning opportunities. Thus, as noted above, students have been able to ease into AR over time as they apply it in their workplace settings. Further, because students conducted their efforts in cycles, faculty members provided focused instruction appropriate to the particular cycle. This "just-in-time" instructional approach made development of inquiry skills more manageable for PPD students.

14.3.14   Affording a "Just Right" Approach for Practitioners

Overall, AR has shown itself to be appropriate to meet the needs of PPD students/practitioners. AR readily meets the "Goldilocks Principle" of being "just right," in terms of the adaptable, flexible, and sustainable approach PPD students/practitioners need for their programs and for their professional practices during the program and especially after it, as they draw upon inquiry skills to continue to inform their practices.

14.4   Developing Inquiry Through Cycles of Action Research

In our own PPD program, the Doctor of Education in Leadership and Innovation, we have used cycles of AR throughout to foster and develop PPD students' inquiry skills. The description of our use of cycles of AR, here, extended the work of Buss (2018a) and Mertler, Buss, and Henriksen (2016). The AR cycles are presented in Table 14.2, which includes two columns – (a) the course(s) and descriptions of inquiry skills that were developed in the course(s), and (b) the concurrent cycle of AR that was carried out by students in our PPD program. As illustrated in the discussion below, the AR cycles offered students systematic and prolonged opportunities to learn how to use AR in their workplace settings. Moreover, by using the AR cycles over time, PPD students extensively examined their professional practices and the problem(s) they encountered in their workplaces.

In the following portion of the chapter, we discuss the AR cycles in depth to illustrate how the cycles have been used to develop inquiry as practice skills among PPD students participating in our program. Moreover, the discussion suggests how the AR cycles were scaffolded to promote development of appropriate workplace inquiry as professional practice skills among PPD students. Finally, in the discussion of AR cycles, which have been implemented by students across the program, we have shown how we afforded opportunities for PPD students to develop professional practice-appropriate inquiry as professional practice skills – skills that they used in their professional practice settings. Finally, as the descriptions of the AR cycles unfold across the program, it should be apparent that students' coursework and inquiry skill development were closely connected to their practice needs.

14.4.1   Term 1 AR – Developing the AR Concept Paper

In TEL 706 (*Introduction to Doctoral Studies*), students are introduced to AR. Students acquire knowledge about AR and AR processes. They also examine how AR relates to inquiry as practice and the benefits of employing AR in their professional practice settings. As students gain understanding about the AR process, they use these ideas to identify and refine a problem that connects to their workplaces. They also devise their initial research questions, which are connected to their work-based problem. Finally, in a very limited fashion, they identify and explore some preliminary research literature.

Table 14.2 Inquiry strategies and cycles of action research in a PPD program.

Course and course content to develop inquiry skills	Action research activity
Term 1 TEL 706 – *Introduction to Doctoral Studies* • Acquiring understanding of AR • Considering and articulating a work-based problem • Identifying and studying initial research literature	Action research concept paper • Developing a preliminary problem • Contextualizing the problem • Developing initial research questions
Term 2 TEL 711 – *Strategies for Inquiry* • Developing understanding of quantitative and qualitative research • Acquiring background on theories • Building skill reading the literature • Writing about context, theories, related literature, and initial methodology • Considering and devising an initial intervention/innovation	Action research Cycle 0 • Conducting reconnaissance • Collecting some data and writing it up Action research foreshadowing Cycle 1 • Clarifying and writing about their context • Reviewing and writing about theoretical frameworks guiding the project • Designing initial intervention/innovation • Designing a preliminary AR study
Term 3 TEL 712 – *Mixed Methods of Inquiry* • Developing mixed-method research skills • Expanding interviewing and survey skills • Acquiring initial quantitative and qualitative analysis skills	Action research Cycle 1 • Developing/revising intervention and data collection procedures • Modifying research questions • Implementing Cycle 1 study with a small-scale intervention
Term 5 TEL 701 – *Applied Methods of Quantitative Inquiry* and TEL 713 – *Applied Methods of Qualitative Inquiry* • Extending mixed-method research skills • Expanding interviewing and survey skills • Increasing quantitative and qualitative analysis skills	Action research Cycle 2 • Extending Cycle 1 or stepping to the side • Refining intervention, data collection, and data analysis procedures • Implementing Cycle 2 study
Term 6 TEL 792 – *Research* • Extending mixed-method research skills • Expanding interviewing, survey, etc. skills • Improving quantitative and qualitative analysis skills	Action research Cycle 2.5 • Extending Cycle 2 or stepping to the side • Refining intervention, data collection, and data analysis procedures • Implementing Cycle 2.5 study
Terms 7–8 TEL 799 – *Dissertation* • Applying mixed-method research skills • Applying interviewing, survey, etc. skills • Applying quantitative and qualitative analysis skills	Action research Cycle 3 • Extending Cycles 1, 2, and 2.5 • Implementing Cycle 3 study – Dissertation

From these developing understandings of AR, their problem, and the preliminary, but limited, research literature they review, they write a brief, 10–12 page paper articulating their initial thinking about a possible AR project related to their problem. Specifically, they share their problem and provide contextual information about it, develop preliminary research questions, offer a brief summary of literature related to their problem, and advance some preliminary methodological thoughts about a way to address their problem.

14.4.2 Term 2 AR – Conducting Cycle 0 and Preparing for Cycle 1

In TEL 711 (*Strategies for Inquiry*), PPD students expand and improve their thinking about their work-based problem and their research questions. It is important to note that, at this point, faculty members do not expect students to arrive at an ultimate problem or final research questions. Rather, faculty members consider initial efforts to be developing ones, which grow over time. Therefore, the problem and the research questions are "working propositions" that students refine throughout the program. Moreover, the course assists students in understanding the foundations of quantitative and qualitative research, and in conjunction with other courses in the term, acquiring knowledge about theories and forming skills to read the literature critically. Instruction on quantitative and qualitative research techniques, critical reading of research, and interviews facilitate students' construction of knowledge and applicable skills for the AR work they carry out this semester. Finally, students create a modest interview or a survey for Cycle 0, which they carry out with key informants.

For Cycle 0, the scope of the AR work is limited. Students usually conduct three to four interviews of key informants (i.e. colleagues, staff members, or students). The focus of their work is on reconnaissance – gathering supportive data as they engage in inquiry about their problem. To prepare themselves for this cycle, students read about and discuss interviewing. They also receive instruction on interviewing and developing interview items. Then, students devise interview questions, obtain feedback, and practice with peers. Later, students carry out interviews and employ simple analytical procedures, which are appropriate for those beginning to learn to use inquiry, i.e. determining three or four key ideas from the interviews. Formal analyses are not performed because students do not have the background for such work. By comparison, some students employ a survey with a small group of informants.

In the following section, we present an example of one students' AR inquiry work. To aid the reader's understanding of the work, first, we provide particular context and background information about the student's problem. Maria Paredes's work-based problem of practice was concerned with developing a parent engagement program, which prepared parents to work effectively with their children to develop their academic skills. Maria served as the Director of Community Education for her school district. As Director, one of her responsibilities was "to ensure successful implementation of parent involvement programs that positively affected student achievement across the district" (Paredes, 2011, p. 29). Nevertheless, as Maria evaluated current parent involvement, she was concerned that most parental involvement activities were focused on social

involvement such as open houses, carnivals and fairs, meet the teacher, and so on. Even parent-teacher conferences were limited in terms of influencing student achievement because these were merely reports of performance, which were usually attended by parents whose children were doing reasonably well in school. Further, Maria served as Director in a district where the student population included 5% African American, 5% Native American, 5% Caucasian, and 85% Hispanic students; 33% second language learners; and a 40–45% mobility rate.

Given this contextual background, Maria developed and implemented an intervention program entitled "Academic Parent Teacher Teams" (APTT; Paredes, 2011). In the APTT intervention, three parent-teacher team meetings have taken the place of parent teacher conferences (one individual parent-teacher conference remains). The APTT Family Engagement Framework employs team meetings that include five essential elements: (i) team building, (ii) providing information about grade-level skills and expectations, (iii) review of their child's data relative to grade-level expectations, (iv) teacher modeling of activities to use at home with parent practice of activities with one another, and (v) setting SMART academic goals for their children. Notably, APTT teaches parents how to support their children's academic growth at home by providing resources and activities that parents can use with their children in the home setting. These efforts reinforce and extend the learning by providing additional time and support in the home. Data from Paredes's dissertation indicated the APTT model was effective in helping parent to foster academic growth in reading skills of students in nine first-grade classrooms (Paredes, 2011).

As indicated in the descriptions in the cycles of AR below, she successfully implemented the APTT effort in her district. It was so successful that is has become a program that has been implemented nationally. Paredes's work is used throughout this section of the chapter to illustrate how various cycles of the AR process are implemented.

To illustrate the nature of the work that typically is performed in Cycle 0, consider the following example of Maria's Cycle 0 project, in which she gathered reconnaissance data about her problem – how to build a parent engagement program that supported student achievement. Maria conducted interviews with key informants including parents and teachers from several school campuses and key administrators in her district. From the parents, she learned of their frustration *and* their interest in being more involved with supporting their children's academic growth, but not knowing how to achieve this aspiration. She interviewed the teachers and administrators to gather their thoughts and concerns about what a parent engagement program focused on helping parents develop their children's academic skills might look like, as well as the roles teachers might play in such a program. Respondents suggested teachers would play a key role in implementing such a program, but they identified barriers including the need for specific professional development on leading and supporting parents in this endeavor. Maria used all of this information as she developed plans for an intervention to prepare teachers to work with parents in a collaborative way using the idea of parent-teacher teams to foster student achievement. By conducting this reconnaissance work, she was better able to articulate her problem and gained additional insight into how she might construct an intervention to deal with it.

Moreover, for TEL 711, students are required to prepare for their next cycle of AR, specifically, Cycle 1. They write about their local context and their problem and scaffold those endeavors within the scope of the national or international work in the area. They also explore different theoretical perspectives and research related to their problem to attain a better understanding of it. This work on theoretical frameworks also provides them with opportunities to consider the intervention/innovation they might employ to resolve their problem. Then, they write a preliminary literature review that incorporates several of the theoretical frameworks and related literature they reviewed. Additionally, they discuss a potential intervention/innovation and describe some preliminary methods and procedures appropriate for use in the next term when they will conduct their AR work for Cycle 1. The methods and procedures are quite basic and include information about participants, an initial intervention/innovation, and preliminary instruments appropriate for assessing outcomes for the Cycle 1 AR study. Notably, this initial work serves as foundational material that can be used in later efforts as they develop their dissertation proposals and related endeavors.

14.4.3   Term 3 AR – Conducting Cycle 1

In TEL 712 (*Mixed Methods of Inquiry*), students examine mixed-methods AR approaches. Moreover, students obtain their initial preparation in analyzing qualitative data, which they apply to their own Cycle 1 data. They continue to learn about interviewing and study about surveys and developing survey instruments appropriate to their work. Finally, they learn about analyzing quantitative data using SPSS, as they study various data sets and investigate their own data using simple data analysis procedures.

During Cycle 1, students engage in AR efforts that include developing and implementing a small-scale intervention. Usually, students work with two or three teachers, staff members, or a small group of students. Normally, the scope of the intervention is limited to ensure the student can effectively implement it and assess its effectiveness. Data collection instruments are limited because students are still developing their understanding of instrument design. Thus, students are experimenting with instruments as they try them out in this cycle. Based on the outcomes from this cycle, students will refine the survey items and/or interview questions. Further, given the outcomes from this cycle, students may also revise their intervention/innovation and/or data collection procedures in subsequent AR cycles.

Consider the following example from Maria's work that illustrates the nature of the work she conducted in Cycle 1. Maria initiated a small-scale intervention with two teachers in which she offered them professional development on how to engage parents in supporting their children's academic growth. She worked with the teachers individually as she provided the professional development about using the five-step APTT meeting process. Additionally, she tested the parent survey with a small group of parents. Results indicated her professional development efforts needed to be strengthened with respect to supporting teachers' efficacy for working with parents. Moreover, results from the parent

survey indicated there were too many items and some of the items were not sufficiently clear.

Term 4 of the program is a summer term. Students are not required to engage in AR activity.

14.4.4   Term 5 AR – Implementing Cycle 2

In TEL 701 (*Applied Methods of Quantitative Inquiry*), students direct their attention to learning how to apply quantitative procedures and improve their knowledge of quantitative data collection and analysis. In this course, they closely examine reliability, validity, statistical tests and their interpretation, and so on. They work extensively on surveys as they fine-tune, administer, and revise their questionnaires. They extend their knowledge about quantitative analysis as they work on reliability analysis, ANOVA (analysis of variance), correlational procedures, and so on, using SPSS. This work fosters students' understanding as they read the literature related to their own research efforts and/or as they use it in their research work. Further, in TEL 713 (*Applied Methods of Qualitative Inquiry*), they expand their understanding of qualitative data collection and analysis. They also refine and extend their qualitative analysis abilities by using qualitative analysis software.

During Cycle 2, students' AR efforts typically become narrower in scope, as students take a "step to the side." Specifically, they narrow their efforts as they examine their survey instruments, refine their interview questions or skills, expand or revise qualitative data collection procedures, revise research questions, and increase their knowledge and skills with respect to data analysis procedures. For example, some students choose to explore more fully their survey instruments by revising, administering, and analyzing them. Others choose to refine their interview questions or explore new qualitative data collection processes. Still others explore their intervention or a part of it to sharpen its effectiveness as they move toward their dissertation work.

For Cycle 2, Maria refined her parent survey and developed interview questions for parents. She reduced the number of items on the survey and revised some of the items to make them easier for parents to understand. She revised the training procedures she used with teachers. Specifically, she added additional information about sharing student academic performance and material that fostered a greater sense of efficacy for teachers as they worked with parents. She also sharpened her interview questions that she used with teachers by revising items.

14.4.5   Term 6 AR – Conducting Cycle 2.5

In TEL 792 (*Research in the Leader-Scholar Community*), students extend their research skills by refining and further developing their interviewing skills, data analysis skills, and so on. In Cycle 2.5, generally speaking, they are extending Cycle 2, as they refine their intervention, data collection procedures, or data analysis procedures, as they continue to develop their dissertation proposals.

Consequently, in Cycle 2.5, which is similar to Cycle 2, students take a step to the side and usually narrow the focus within their Cycle 2.5 AR efforts. Thus,

students choose to engage in a variety of AR activities to best meet their needs for conducting inquiry/research on their problem. Some students refine and test their survey instruments, whereas others revise interview questions or their other qualitative data collection efforts. By comparison, other students revise and finalize their intervention/innovation as they prepare to work on their dissertations.

During Cycle 2.5, Maria tested her parent survey again. She refined her interview questions that she would employ with parents and she developed interview questions that she would use with students. Finally, she worked on developing her interpretive skills so that she could more effectively analyze her qualitative data.

14.4.6 Terms 7 and 8 AR – Executing Cycle 3, the Dissertation

In this program-concluding activity, students extend their work by executing their dissertation, which is based on their previous AR efforts. During the dissertation, students implement interventions/innovations to effect change in their work-based problem, conduct thorough data collection procedures, and execute data analyses appropriate for their studies. During Term 7, the intervention is implemented and data are collected and analyzed. In Term 8, students complete data analyses and conclude by writing the last two chapters of the dissertation.

Maria conducted her dissertation in which she extended her efforts from the previous cycles. In the dissertation work, the proposal, and the dissertation itself, Maria used information and data from earlier cycles to inform the conduct of the dissertation. For example, she used data from Cycle 0 to help establish the context for her work in Chapter 1 of the dissertation. In particular, she discussed the concerns parents had expressed in her Cycle 0 reconnaissance work that hindered them from supporting their children's academic growth and teachers reservations about working effectively with parents. She used this information to establish the problem and the need for the intervention to aid in resolving it. In Chapter 2, on theoretical perspectives *and* research guiding the study, she discussed results from Cycle 1, when she conducted her small-scale intervention. Further, in Chapter 3, as she explained her method, Maria capitalized on the work she had done in previous cycles to inform her efforts, including benefitting from well-developed instruments, finalizing the intervention, and establishing data collection and analysis procedures. In her dissertation, Maria implemented a substantially larger-scale intervention that included nine teachers and approximately 230 students and their parents. She provided the teachers with professional development so they could implement the APTT process with parents who would then work with their children at home. Then, the teachers implemented two APTT sessions with parents (the dissertation timeline provides for about a four-month window in our program). She collected various data, including parent survey and interview data, teacher interview data, observation of APTT sessions, and student pre- and post-intervention reading fluency data and knowledge of high-frequency words. Results showed her intervention was effective (Paredes, 2011). For example, four of five measures of parental involvement

showed significant improvements from pre- to post-intervention assessments. In interviews with parents, parents expressed that they believed they were more closely connected to schools, and importantly, they felt they were better able to support their children's academic growth. Teacher interviews suggested teachers felt comfortable delivering the APTT sessions, and they said they had more interactions with parents that were focused on academic growth matters and were more satisfied with their interactions with parents and parental involvement. Notably, students showed dramatic, significant, and meaningful increases in reading fluency and knowledge of high-frequency words (Paredes, 2011).

14.4.7   Postgraduate AR Inquiry Efforts

Graduates continue to engage in AR inquiry to support their inquiry efforts after completing the program. Notably, students continue their AR work on their problem and/or extend AR efforts to other problems (Buss et al., 2017). Graduates of our program persist in their AR efforts in their local settings as they lead, promote innovation, and collaborate with their colleagues. One graduate, a community college mathematics faculty member, successfully implemented cooperative learning in her classroom during her dissertation. She continues those efforts and her colleagues have observed the effective results she has obtained. As a result of her work, most mathematics faculty members have attended training to learn to use cooperative learning. Now, they use it to foster learning of mathematics and increase retention of students. Another graduate used action research as a professional development process to support alternatively certified teachers at her school. Her principal was so impressed with the outcomes of her work that action research is now being used by all teachers on the campus and her work has influenced the entire school, as observed in her comment, "Now, every … teacher on my campus engages in action research." These results attest to the continued influence of AR inquiry as practice in their workplaces.

   With respect to APTT, the work on accelerating learning by engaging parents in supporting their children's academic efforts, Maria Paredes's accomplishments since completing the program have been quite noteworthy. Shortly after completing the program, Maria went to WestEd, where she has served as a Senior Program Associate and Senior Engagement Manager, and from where she has been able to offer the APTT program throughout the United States. Currently, 600 schools/districts in 24 states have adopted the APTT program, and APTT has affected over 350 000 families with children representing about 15 000 classrooms.

14.5   Conclusion – Implications for Using AR to Foster Students' Inquiry as Practice

Based on the information offered in this chapter, it is evident that AR is a potent technique that fosters the development of inquiry as practice skills in PPD students. Several features of AR make it especially useful in developing an inquiry as practice orientation and requisite skills for students in PPD programs. First, AR

has some inherent characteristics that make it a potent approach that can be used readily by educational leaders and practitioners in their practices. Those characteristics include providing adaptability to various contexts and problems, supporting collaboration, allowing for students to ease into AR over time, developing systematic inquiry over time, and so on. Perhaps, the most critical characteristic is that AR affords sustainability in educational practice settings *after* students complete the PPD program. By providing sustainability in practice settings, AR becomes an ideal procedure for developing and fostering inquiry skills among those in PPD programs.

Second, descriptions of the AR cycles clearly attest to students being provided with opportunities to develop practice-related inquiry skills that are used to attack the problems they encounter in their workplace settings. Moreover, it is obvious that students' inquiry is extensively connected to their daily practice throughout their coursework and during their dissertations.

Taken together, the information provided in this chapter, along with emerging data from several research studies, suggests that AR is highly effective for developing and sustaining inquiry as practice abilities among PPD students (Buss, 2018b, 2018c; Buss & Avery, 2017; Buss et al., 2014; Zambo, Buss, & Zambo, 2015). Specifically, it is clear these AR-fostered, inquiry-as-practice abilities surface during the program as students try them out in their workplaces and become more adept at using them (Buss, 2018a; Buss & Avery, 2017). Notably, these AR-fostered inquiry abilities are sufficiently durable that program graduates continue to employ them in their professional practice settings (Buss, 2018c; Buss et al., 2017; Zambo et al., 2015).

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15

Participatory Action Research (PAR) in Education

Marie Paz Morales

Education plays a vital role in a learned society. Countries rely on education for a strong and empowered human resource – an element of economic and social development. Education shepherds everyone to develop our talents to the fullest and to realize our ingenious potential, including accountability for our own lives and attainment of our personal aims. Many agencies (e.g. United Nations Educational, Scientific, and Cultural Organization [UNESCO], Education International [EI], Association for Supervision and Curriculum Development [ASCD]) campaign for quality education as a human right and a basic element of country development (Slade, 2017).

As an educative process, we acknowledge good quality education as a systematic process of providing all learners with the capacities and skills for them to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies, and improve their well-being (Flemish Association for Development Cooperation and Technical Assistance [VVOB], 2015). Although education develops the entire well-being of the individual, the educative process benefits most when this development is in the natural setting – within society. This system attracted many scholars to shift the focus of participatory action research (PAR) to education to bring about social changes and reform.

In this chapter, we introduce PAR in the context of the teaching and learning process. The chapter aims to provide a synthesis of the major attributes of PAR, in terms of its origin and meaning, as a pedagogical model that encompasses all domains of learning, and as a learning process. Highlights of the chapter include the different models of the teaching and learning process, drawing on the process of PAR leading to its utilization to suggest new learning paradigms that boost the possibilities for knowledge society, inclusivity, globalization, and lifelong learning.

15.1   Participatory Action Research

The roots of PAR may be traced back and attributed to the historical lineage of the action research (AR) family. Action research has existed for decades. Each generation of AR has led to defining and describing its many members, features and highlights, and significant contributions to social change, transformation, and reform.

15.1.1   First Generation

The AR timeline marks the first generation of AR with the introduction of the paradigm by an immigrant to the United States in 1930, a refugee escaping Hitler's fascism (Somekh & Zeichner, 2009), who envisioned improving the social organization of groups and communities. Kurt Lewin developed the AR perspective just after World War II, in order to combat prejudice and discrimination against religious and ethnic minorities. This generation of AR emphasized, through the works of its founder (Lewin, 1944), the archetype of inquiry aimed at improving the capacity and practices of the researcher rather than producing theoretical knowledge. The subsequent development of the paradigm led to the application of the AR architecture to education, in which Corey (1953) promoted AR in education in the United States, featuring extensive collaborations between researchers within school districts and teachers, leading to the Cooperative Action Research Framework.

15.1.2   Second Generation

Continuous development of the AR paradigm drew on other social concepts and concerns to bring about social change, transition, and reform. The second generation of AR began in the 1970s with the grand idea of exploiting the ideals of critical pedagogy for personal and social change. We attribute the high point of the AR timeline to the works of Paulo Freire (1970) and British counterparts John Elliot and Allen Adelman, who championed AR in the context of critical pedagogy and dialogical reflective methods in seeking understanding and attempting to change the world for the better. In their quest for social reform, they campaigned for the empowerment of the poor and marginalized members of the society on issues pertaining to literacy, land reform analysis, and the community, through defining research relationships and roles of involved individuals within their ecologies and considering the nonhierarchical nature of dialogical reflective methods, which advocate almost equal participation of partners and researchers. Both the participants and the researchers engage in self-inquiry to understand and improve upon their practices, whereby they participate in the situation that they are in. Freire emphasized that PAR encourages the poor and the marginalized to examine and analyze the structural reasons for their oppression (Freire, 1970). A similar paradigm termed by Foucault (1970) as "power" and "empowerment" draws from the attribution that PAR is under the umbrella of phenomenologism, acknowledging that human experiences cannot be described in isolation from their object. Human consciousness brings about critical reflection (considered as action), and

in unity, people become creative and mutually illuminating to each other, which leads to transformative power. Power is central to PAR and is drawn from the interaction of people flowing from the position that action and reflection are inseparable. As a result, PAR goes a long way to explore different fields; whenever dialogues occur between people, they form the core of the situation. From Corey's (1953) lead, PAR landed on the development of teaching (Stenhouse, 1975), narrating the teachers' ownership of curriculum research and teaching development. Stenhouse strongly believed that teachers' voices ultimately provide consciousness from which to source critical actions for curriculum development ("It is not enough that teachers' works should be studied; they need to study it themselves."). Here, we see the multiplicity and rich diversity of AR. In the case of education, for example, Shirley Grundy in 1982 officially delineated the three modes of AR: technical, practical, and emancipatory (Grundy, 1982).

15.1.3 Third Generation

In this generation PAR's dominance reached other parts of the world to reform societies. While PAR's influence was already evident in the United States and Britain, Hall (1981) brought PAR into Asia and established the pioneering organization Participatory Research in Asia (PRIA), commencing the third generation of PAR.

PAR continued to progress in the United States and Britain. Action researchers from these countries (Carr & Kemmis, 1986; Maguire, 1987; McTaggart, 1989; Selener, 1997) plotted PAR in the framework of critical theory, orienting PAR toward critiquing and changing society as a whole. Their paradigm brought the concept of PAR to a shared vision of society free of domination through: (i) radical and reformist approaches to international economic development assistance (Maguire, 1987; Selener, 1997); (ii) empowering education, specifically adult education (Maguire, 1987; Selener, 1997); and (iii) improving social practice through change (McTaggart, 1989; Whyte, 1991). Several other researchers (Deshler & Ewert, 1995; Elliot, 1991; McNiff, 1993; Noffke, 1997; Selener, 1997; Wadsworth, 1998) focused on the education context of PAR and human resource theories (Deshler & Ewert, 1995; Noffke, 1997). These deviations in the path PAR undertook identified the three major dimensions of PAR as the professional dimension, the personal dimension, and the political dimension. In the same year, the seven components of PAR (Selener, 1997) included how the problem originated, the ultimate goal of PAR research, PAR processes, PAR participants and level of engagement, PAR's capability to capacitate individuals, accessing community through PAR, and developing participants' attributes such as commitment and militancy. As a result, PAR ventured into the emancipation of participants and people as a natural course of events sourced from critical dialogue and reflection.

An parallel development of PAR existed in the boundaries of India and Southern Asia. PRIA's journey as an organization campaigning for participation influenced many fields, including forest policies through the lens of forest dwellers (Hall & Tandon, 2017). With respect to PAR, PRIA triggered two major events: (i) PAR as being visible and having greater acceptance in government and academe, and (ii) academic institutions adopting PAR as part of research methodology courses. However, PAR leveled off for a decade, when most Asian

participatory researchers got locked into the same framework, until three social movements provided fresh triggers: the women's movement, the holistic health movement, and the ecological movement, which marked the beginning of the fourth generation of PAR (Hall & Tandon, 2017).

15.1.4   Fourth Generation

The fourth generation of PAR emerged in connection with critical-emancipatory research, where PAR developed in the context of social movements in developing countries as well as developed countries. Working on the analysis of this generation of PAR led Kemmis and McTaggart (2008) to the generalization that two themes govern it: (i) the development of theoretical argument for a more activist approach to AR, and (ii) the need for PAR researchers to make links with broad social movements. PAR researchers take an activist approach to research, sourced from the works of Charles Hale (2001), as a way to help better understand the core sources of inequality, oppression, violence, and related conditions of human suffering. The process includes carrying out the action with the people who are subject to these conditions and with them utilizing this action to formulate strategies for transforming these conditions and to achieve the power to make these strategies effective. Consequently, significant avenues emerged from the activist AR approach, including cooperation, participation, and engagement (Chatterton, Fuller, & Routledge, 2007; McNiff & Whitehead, 2006), conscientization, which refers to educating people to learn to perceive social, political, and economic contradictions and to take action against the oppressive elements of reality (Mountz, Moore, & Brown, 2008; Sinclair, 2007), and praxis-oriented education that seeks to open communicative spaces with others to address irrationalities (Adlong, 2008).

  I view the second generated theme as having evolved from the first. The first establishes PAR as methods, processes, and epistemology that may direct PAR in its journey to make more links. PAR branched out to other areas of society such as adult education (Langhout & Thomas, 2010; Phillips, Berg, Rodriguez, & Morgan, 2010), positive youth development that features youth-led PAR to avoid risks factors such as teenage pregnancy, substance abuse, and youth violence (Checkoway, Dobbie, & Richards-Schuster, 2003; Ginwright, Noguera, & Cammarota, 2006; Langhout & Thomas, 2010; Minkler & Wallerstein, 2003; Ozer, Ritterman, & Wanis, 2010; Phillips et al., 2010), and education in general inclusive of science education, graduate education, and indigenous education (Eilks & Markic, 2011; Esau, 2013; Vaughan & Burnaford, 2016).

15.2   The AR Family

15.2.1   Action Science (AS)

Action science commences with an inquiry of how humans design their actions in difficult situations. This AR member focuses on promoting reflection and inquiry into the reasoning behind action (reflection-in-action), assuming that

there is a *theory-in-use* or *mental model* behind every action. The emphasis of this paradigm is to uncover these mental models through advocacies and inquiries to understand the differences between what we espouse as theories (what we say and believe) and our theories-in-use (theories implied by what we actually do). As an approach, action science aims to holistically improve organizational performance by improving team members' practice through effective processes of learning together, solving complex problems, and making better decisions, the roots of which are from the works of John Dewey and Kurt Lewin in the early twentieth century, later developed into a rigorous and effective domain of organizational inquiry and performance practice by Chris Argyris, Donald Schön, and Robert Putnam. The collaborative nature of the new learning skill of action science often creates a *double learning loop* by improving the outcomes through understanding the members' actions and beliefs (Argyris, 1990; Argyris, Putnam, & McLain Smith, 1985; Argyris & Schön, 1974, 1978; James, 2015; Reason, 1988).

15.2.2 Action Learning (AL)

Action learning is a popular and effective problem-solving strategy in many organizations. In this AR family, groups of diverse and talented problem-solving teams are formed to reflect on a real problem (important, critical, and usually complex) and promote and collectively convert curiosity, inquiry, and reflection into actions and, ultimately, solutions to the complex problem. In most cases, action learners formed into teams have a strong commitment to learning (Dilworth, 1998). Reginald Revans originated this AR member in 1982 through his mathematical modeling, $L = P + Q$, where L represents *learning*, P represents *programming*, and Q represents *questioning* (Revans, 1980, 1982). Many other researchers drew from Revan's work and branched out as "action research learning" or with other models such as the MiL Model by Lennart Rohlin of the MiL Institute and the WIAL (World Institute for Action Learning) Model by Michael Marquardt, Skipton Leonard, Bea Carson and Arthur Freedman (Carson, 2016). These models featured the major role of project team advisor or the Learning Coach, which Revan's original pioneering work frowns upon. These MiL and WIAL models surfaced as very functional in educational institutions (WIAL, 2017). More developments on AL uncovered the concept of "unlearning" popularized by Robert Kramer (2007a, 2007b, 2008), now being perpetuated in science education research to address science misconceptions and promote conceptual change.

15.2.3 Appreciative Inquiry (AI)

Appreciative inquiry (AI) is a perspective that aims to build or rebuild organizations around what works, not by trying to fix what does not. It is a state of consciousness that allows us to see ourselves and the world through an appreciative and valuing eye. Rather than look for solutions, we focus on discovering (what is), dreaming (what might be), and designing to reach our destiny (what should be). This AR member was pioneered by David Cooperrider and Suresh Srivastva of the Weatherhead School of Management at Case Western Reserve University

in the 1980s (Bushe, 2013; Cooperrider, Barrett, & Srivastva, 1995; Cooperrider, Whitney, & Stavros, 2008; Ludema, Whitney, Mohr, & Griffen, 2003).

15.2.4 Community-Based Action Research (CBAR)

As a framework for conducting research, community-based action research (CBPR) emphasizes an equitable relationship between communities and academic researchers, aimed to address issues and concerns of community members. Collaboratively, the academic researcher and members of the community seek knowledge and action to achieve social change for quality living. Consequently, CBAR delivers to the community: (i) enhanced capacity and confidence of the community and its members, (ii) improved transferable skills of community members, and (iii) increased community support (Burns, Cooke, & Schweidler, 2011; Community-Campus Partnership for Health, 2013; Minkler, 2005; Trunkey, 2006).

15.2.5 Living Theory

Living theory research imitates the traits of self-study research in which researchers validate their claims to knowledge (Samara, 2010). Faced with the issues of validating their generated knowledge, researchers use research methodologies such as action research, narrative enquiry, and auto-ethnography to generate their values-based explanations of the educational influences in their own learning, in the learning of others, and in the learning of social formation (Whitehead, 1989). This newly generated epistemology forms living educational theories, where researchers can form explanatory standards by which improvements in practice and knowledge generation may be judged (Boyer, 1990; Schön, 1995).

15.2.6 Participatory Action Leadership Action Research (PALAR)

Putting together two similarly framed research traditions gave birth to participatory action leadership action research (PALAR). Action learning (traditionally utilized for better practice in management and organization) and action research (traditionally used to improve practice in education and to acquire social reform) similarly advocate the ideas of being holistic, participatory, collaborative, and community-oriented (Knowles, 1985; Margerison & McCann, 1985; McNiff & Whitehead, 2006; Whitehead, 2016). Historically, these two research traditions crossed paths at an international conference – the First World Congress on Action Learning, Action Research, and Process Management (ALARPM) at Griffith University in Brisbane, Australia, in 1990, with 360 delegates from across the world and from all sectors of society (including consultants from industry, government, business schools, and school and tertiary teachers and university staff) (Knowles, 1985; Margerison & McCann, 1985; McNiff & Whitehead, 2006; Whitehead, 2016). Consequently, the merging of research traditions emphasized PALAR with three R's – relationships, reflection, and recognition – to promote an authentic participatory approach to knowledge creation, and practical social and educational improvements (Zuber-Skerritt, Kearney, & Fletcher, 2015).

15.2.7   Participatory Action Research

Participatory action research works as a process of investigating communities to understand and change them (Bergold & Thomas, 2012; Reason & Bradbury, 2008). This family of AR strives for inclusion, social change, and justice and equality of participants through participation and action. The key components of PAR include a focus on change, a particular context – generally targeting the needs of communities – emphasis on collaboration, perpetuation of a cyclical process, and the sourcing of knowledge from the participants' collective efforts and actions (Chatterton, Fuller, & Routledge, 2007; Greenwood, Whyte, & Harkavy, 1993; McTaggart, 1997).

15.3   PAR in Educational Contexts

15.3.1   PAR Traits Suited to the Education Field

PAR has come a long way, from a focus on social reform to being applied and viewed as important to communities and organizations even in the education field. Many action researchers see the benefits PAR may provide to education, which may be sourced from the array of traits and characteristics of PAR. From Stephen Corey's lead, action researchers argued that AR can be a method to improve teaching and learning (Levin & Rock, 2003; Sagor, 2005). In fact, Geoffrey Mills emphasized some AR characteristics suited to education such as:

- Research should be done by teachers for themselves.
- It is a systematic and international paradigm with major goals of helping teachers make decisions about their classes; improving classroom or school practice; encouraging teachers to see themselves as producers of knowledge; and allowing them to clarify, elaborate, and modify theories that inform them (Mills, 2011, p. 19).

These AR characteristics codified how research may inform and improve teaching and learning practice and how practice may inform research that highlights systematic inquiry based on ongoing reflection. Classroom-based and practical action research may well document these reflections and insights on theory-driven action and action-driven theory. AR in a collaborative perspective, better known as PAR, may bring about significant changes to important education domains, such as school policies, curricular reform, and education in general. PAR "seeks to bring together action and reflection, theory and practice, in participation with others, in pursuit of practical solutions to issues of pressing concerns to people, and more generally the flourishing of the individual and their communities" (Reason & Bradbury, 2001, p. 1).

PAR features equitable participation, empowerment, co-learning for capacity building and system change, and has a commitment to promote sustainability through long-term collaboration (Blair & Minkle, 2009; Israel et al., 2008; Minkler, 2005). There are several configurations of participation in PAR, where each of these configurations may be drawn from the idea of communicative spaces, as popularized by Stephen Kemmis and Robert McTaggart. They describe

communicative spaces as the "intersubjective agreement, mutual understanding of a situation, and unforced consensus about what to do" (Kemmis & McTaggart, 2008). By "intersubjective," they mean communication with a sense of accuracy, comprehensibility, sincerity, and morality. They further conjecture that communicative spaces are human interactions that encourage mutual sharing, acknowledging, exploring, reflecting, and negotiating human experiences within an authentic, informal, respectful, and trustful atmosphere to facilitate shared learning and capacity building (Bodorkós & Pataki, 2009; Kemmis, 2006). PAR experts would look at communicative spaces in three broad pathways in the context of action research practice: first-person (personal reflective practice), second-person (communicating with the community), and third-person (wide community engagement to seek contribution to a wider community development) (Chandler & Torbert, 2003; Gustavsen, 2003; Gustavsen, Hansson, & Qvale, 2008; Reason & Bradbury, 2001, 2008; Reason & Torbert, 2001). In whichever path, communicative spaces emphasize inquiry skills. First-person (personal reflection) inquiry skills may address a person's ability to act critically and with awareness by employing the action research cycle: plan, act, observe, and reflect. Second-person action research practitioners indulge in cooperative inquiry to resolve mutual issues and concerns in a small group within the community working together in cycles of action and reflection to develop both understanding and practice in a matter of mutual concern. The third-person practitioners collectively draw together a wider community of inquiry through approaches such as wide communication through collective small-group inquiry or whole-system inquiry using fora and conference designs (Bergold & Thomas, 2012; Kemmis & McTaggart, 2008; Grootenboer, Edwards-Groves, & Rönnerman, 2015). Further studies of Jarg Bergold and Stefan Thomas emphasized the distinction of safe communicative spaces in three phases: the inclusion phase, the control phase, and the intimacy phase, where these phases must address three problem areas: emotional issues, task issues, and organizational issues (Bergold & Thomas, 2012).

Participant engagement depends on the communicative space created. As a discursive arena where voices can be heard and a physical field (Bevan, 2013) for a better engagement, the levels of participation or participant engagement may dictate communicative spaces or the other way around. The level of participant engagement may be categorized as contractual participation, consultative participation, collaborative participation, or collegial engagements. High levels of participation are seen in collaborative and collegial engagements. Collaborative engagement emphasizes a partnership of researchers and participants, while collegial engagement enables participants to take actions for autonomous research in order to develop and improve participant capabilities and practice.

As an example, PAR (in the Philippine practice) provides significant contribution to the professional learning of science and mathematics teachers for better science and mathematics country ranking and scientific literacy. PAR framed the country's teacher professional development program emphasizing and delineating the aforementioned levels of engagement featuring university-led and community service-oriented configuration with the Philippine education agency. The collegial engagement emphasized university facilitators managing

teacher-researcher networks, where teachers within the networks worked collaboratively to improve practice. Each of these members of the teacher-researcher network conducts AR in their respective local school setting and engages contractually or consultatively with their respective students.

Each level of engagement – contractual, consultative, collaborative, and collegial – empowers the participants to influence, improve, and transform the circumstances and conditions under which they function. Communicative spaces, then, encompass a broad range of communication (social aspects) between teacher education and the practice arena where dialogical processes can be undertaken for collective resolutions to education concerns (Bodorkós & Pataki, 2009). Furthermore, combining the aforementioned scheme with interactive communication between teachers and learners provides a means to hear their voices as they shout for ways to learn more meaningfully and effectively.

15.3.2   The Guiding Paradigm

Listening to children's voices in order to constructively plan for meaningful learning may be viewed in several perspectives. Post-positivism, working within the domains of constructivism, argues that each of us constructs our view of the world based on our perception of it, influenced by our culture and experiences (Trochim, 2006; Zammito, 2004). Post-positivists emphasize objectivity as inherently a social phenomenon and the value of multiple measures, observations, and triangulation (our methodological choice) of sourced data across these multiple roots to get a better perspective of reality and objectivity (Alexander, 1995; Moore, 2009). Epistemologically, PAR works within the bounds of social constructivism and sociocritical theory. These theories focus on how humans jointly construct knowledge and reality by creating models of the social world and, at the same time, indulge in a continuous process of critical assessment through reflection and sharing of socially constructed knowledge and reality through language and communication (Andrews, 2012; Horkheimer, 1982; Leeds-Hurwitz, 2009).

Initial attribution of these theories through the paradigm of PAR can be traced to the pursuit of social reform and transformations, even within the field of education. Paulo Freire believed in the unity of theoretical framework and practice, or praxis, as a new way to intellectual and social freedom for everyone, even for the oppressed (Freire, 1970). Praxis may refer to theory-informed practice or practice-informed theory (Macdonald, 2002). It may even be considered as an "informed action," a process of acting within the bounds of a theoretical frame of thought and taking action in practice. Oliver Quinlan (2012) saw the significance and the contributory essence of praxis in teacher education:

> This is not a case of "doing" and the "reflecting" on it later, rather one of making sure every action has an informed basis, whilst every valuable thought is put into action. A teacher involved in bringing theory to practice could consider their actions when planning, and then again when reflecting or evaluating. A teacher immersed in *praxis* would bring their theoretical thoughts to every decision as they make it, adapting their actions in a

classroom to ensure they continue to encourage the learning their students are undertaking. It situates the learning as a conversation between learner and teacher, rather than as a teacher carrying out their plans, which were crafted in the hypothetical world of being "good in theory." *(2012)*

Praxis is said to be the cornerstone of AR (O'Brien, 2001) and AR proponents view praxis as a vital tool in the improvement of practice (Danielson & McGreal, 2000; McNiff, 1997; McTaggart, 1991; Schön, 1983, 1987). Significantly, we see "praxis" as the enabler to many educational innovations and curricular reforms (Ax, Ponte, Mattison, & Rönnerman, 2008; Kemmis & Smith, 2008; Smith, Rosenzweig, & Schmidt 2010). AR can also be viewed as a way to examine praxis that provides a more focused and disciplined method of introspection on teaching and learning (Bissessar, 2015; Danielson & McGreal, 2000). The AR family lavishly influenced the bounds of education with particular emphasis on its domains, such as pedagogy, assessment, curricular paradigms, and professional learning.

As an illustration of PAR influence on education, the Teacher Professional Development Program (TPDP) framed in PAR epistemologies and methodologies generates pedagogical innovations, assessment models, curricular paradigms, and professional learning of science and mathematics teachers in the Philippine elementary and junior high school levels. This pioneering pilot program improved the scientific and mathematical literacy of the Philippine citizenry by focusing on formally training 25 pre-selected science and mathematics teachers through the PAR-influenced teacher training design deduced from the results of a teachers' needs analysis study (Morales et al., 2016). The initial phase of the program addressed teachers' identified needs to learn more about the basic concepts of action research. A four-day orientation provided a holistic conceptual understanding of the different AR domains. That participants opted for voluntary grouping, resulting in five teacher-researcher networks (two pedagogical innovation groups, two assessment mode groups, and one group on parental involvement), significantly exhibited PAR features such as equitable participation and empowerment. Apparently, these PAR features significantly contribute to the vision of sustainability through long-term commitment and collaboration within and across networks to improve science and mathematics classes through AR. Sustained collaboration and frequent, deliberate, and varied levels of engagement within and across networks within the program duration formed the framework for the pilot program (see Figure 15.1).

Each AR resolved current classroom issues, eventually leading to better learning of foundational science and mathematics. All qualitative data generated during the dialogical processes in all three layers of communicative spaces – within class (teacher-participants with students), within teacher-researcher network (teacher-participants with university facilitators), and within the core research team (university facilitators) to inform education practice in the education field (our partner) – led the participants to certain reflections on various aspects of TPDP (professional learning), pedagogical innovations inclusive of assessment styles, curriculum, and science and mathematics classrooms.
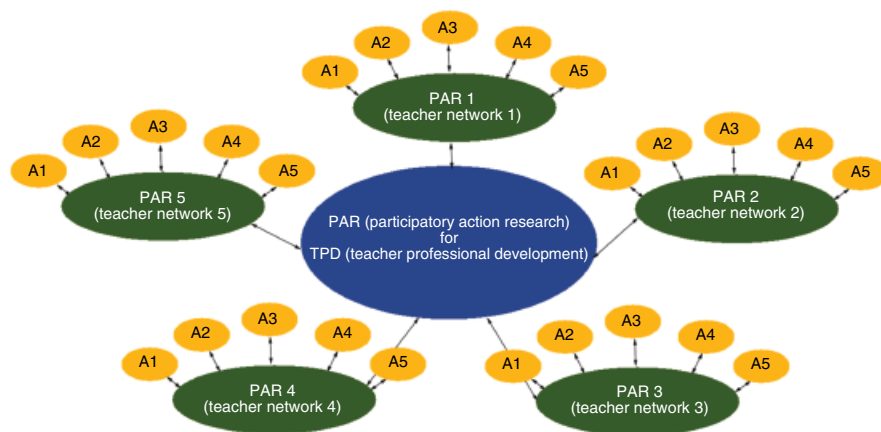
Figure 15.1 PAR model for the TPDP framework.

15.3.3 Professional Learning, Curriculum, Pedagogical Innovations, and Assessment Styles

Teachers of the pioneer PAR-influenced TPDP experienced a wide array of learning opportunities, from learning more about AR, conduct of AR, and processes of AR to being able to provide opportunities for better foundational science and mathematics learning experiences. New ideas for resolutions to several of the challenges identified during the AR projects were sourced from the responses of teachers and learners to the dialogical processes employed in their networks. The inter-network meetings enabled by the university facilitators drew out many inputs from the networks to build on a unique TPDP for Filipino teachers. Positive insights from and accounts of the PAR-influenced TPDP included home visitations, multiple strategies for teaching a lesson, consultative sharing with peers in the teacher-researcher network, use of social media, pictures, and videos (photovoice) to document their learners' facial and body transitions and transformations, varied styles of assessment when the teacher-participants conducted lessons planned on the AR framework, small-group sharing, and professional learning. The varied assessment practices instituted in the AR classes within the TPDP professed reflection-in-action that influenced practice as well as complementing reflection-of-action. As such, the program proved to be a long-term (one year) response to the call for efforts for quality education. Several researchers exhibited the same trends in the aspect of TPDP (Eilks & Markic, 2011; Goodyear, 2013; Jogthong & Pimolbunyong, 2001; Ozer, Ritterman, & Wanis, 2010; Phillips et al., 2010; Vaughan & Burnaford, 2016). Efforts to significantly improve quality teaching through successful TPDP wielded strategies far from the traditional quick and short workshops (e.g. one- to three-day courses) that provide multiple or a multitude of teachers (Groundwater-Smith & Mockler, 2009) with just the technical information (Fullan, 2007; Hargreaves, 1994; Mockler, 2011). Apparently, there exists limited evidence that this quick and one-size-fits-all approach can actually impact teachers to change their practices for better and more meaningful student learning (Darling-Hammond & Richardson,

2009; Lieberman & Pointer-Mace, 2008, 2010). Teachers tend to change their practice only when they see the suggested strategy or scheme as practical and innovative enough to produce sustainable change in students' learning outcomes.

PAR as a pedagogical strategy emerged in the education domain decades ago with the groundwork of Corey (1953), Foucault (1970), Stenhouse (1975), Deshler and Ewert (1995), Elliot (1991), McNiff (1993), Noffke (1997), Selener (1997), and Wadsworth (1998). As a pedagogical strategy, PAR reached many spheres of education, including inservice learning (Hine, 2013; Burmeister & Eilks, 2013), graduate studies (Vaughan & Burnaford, 2016), and preservice education forging school-community partnerships and enhancing service learning (Esau, 2013; Mountz, Moore, & Brown, 2008; Pine, 2009; Sagor, 2000; Sample McMeeking, Weinberg, & Boyd, 2015; Westfall, Van Vorst, Main, & Herber, 2006), that recreated Jane Addam's ideals, as Daynes and Longo (2004) quote:

> Process matters; the unpredictability of creative processes is necessary for collaboration; and only collaborations that deconstruct hierarchical forms of knowledge production offer potential for transformation in realms of citizenship and participation in social change. (p. 6)

15.3.4 Methodologies

Through the works of Lewin, Collier, Stenhouse, and Elliot, PAR emerged in education as a technique or a methodology rather than focused on social action (Goodyear, 2013). As a process and a technique in education, PAR underscores both individual and collective inquiry into practice, gathers insights through communicative dialogue with different stakeholders (colleagues, students, administrators), and encourages the integration of evolving findings into their practice for better delivery of lessons and to attain quality learning. Thus, PAR claims to highlight development and sustainability of praxis (Goodyear, 2013) necessary for the perpetuation of PAR cycles – plan-act-reflect – to evoke change of practice. In fact, PAR scholars (Ozer, Ritterman & Wanis, 2010) working with youth emphasized the following processes as central to PAR:

- integration of research and action;
- training and practice of research skills;
- sharing of power and influence between participants in both research and action processes;
- practice of strategic thinking and strategies for influencing change.

PAR-influenced TPDP worked around and between these core processes in a messy area going forward and backward where new understandings are revealed and articulated (Cook, 2009; Kemmis & McTaggart, 2008) through dialogical process, conducted face-to-face or virtually, formally or informally, and with different groups or individually (Goodyear, 2013). PAR pays explicit attention to communicative space between participant-teachers, with the lead facilitators and with students, where teachers discuss their intended processes

with the facilitator and with their peers and negotiate their practice with students (plan), and teachers' community of action and reflection takes place to inform practice. The entire PAR process primarily depends on analysis, dialogue, and negotiations put into practice through methods such as focus-group discussions, interviews, class observations, use of anecdotes and cases, journaling, and photovoice. Thus, PAR has reached many bounds and fields of education, including middle school and youth-led PAR (Langhout & Thomas, 2010; Ozer, Ritterman, & Wanis, 2010), indigenous knowledge (Sinclair, 2007), curriculum and graduate studies (Vaughan & Burnaford, 2016), teacher education programming, curriculum, and preservice teacher education (Esau, 2013, Hine, 2013; Pine, 2009; Sagor, 2000; Sample McMeeking, Weinberg, & Boyd, 2015; Westfall et al. 2006), teacher professional development (Goodyear, 2013; Jogthong & Pimolbunyong, 2001; Phillips et al., 2010), and science education (Eilks & Markic, 2011; Eilks & Ralle, 2002).

Within the bounds of PAR, a teacher professional learning and development program for science and mathematics teachers benefiting from the works of several scholars formed a core group of facilitators with a group of preservice physics education scholars and on-the-job training (OJT) in the research unit. The dual (professional learning and OJT) PAR-influenced program aimed to: (i) partner with the basic (elementary and high school) education agency, (ii) mentor elementary and high school science and math teachers on action research, (iii) improve the achievement levels of Filipino students, and (iv) train OJT preservice physics education scholars in research and in teaching. PAR in the teacher professional learning program worked as both an epistemological and a methodological paradigm using PAR processes such as analysis, dialogues, and negotiations. With expanded and developed communicative spaces, cultivated along the way, varied relations strengthened the communicative spaces and community of actions. The several cells and groups, including inter-facilitators, facilitator and teacher-participants, peers within the teacher networks, inter-teacher network, teacher and students, facilitators and preservice physics education scholars, and teacher-participants and preservice physics education scholars, highlight the threefold network of facilitators, teachers, and OJT preservice physics education students.

Three major groups of goals describe the triangulation in the dual PAR-influenced program. In the *network of facilitators*, PAR aims to craft a TPDP model for science and mathematics teachers embedding the concept of practical and classroom-based AR. This TPDP as professional learning highlights the concept of peer learning through *teacher networks* working on classroom-based AR on a common theme to generate emerging trends of interventions, assessments, strategies for better student engagement, and strategies for parental involvement. Also, this scheme acquainted the *preservice physics education student-trainees (OJT)* trainees with the principles and processes of both PAR and classroom-based AR during their immersion in the program, which they will need when they eventually become physics teachers. Subjecting them to PAR, immersed within inservice science and mathematics, may forge new paradigms and a new framework for an on-the job training program in the preservice teacher education curriculum.

Dialogical processes, analyses, and negotiations dominated within and among the networks of the PAR project. All teams (network of facilitators, teacher networks, OJT preservice physics education students) emphasized the AR/PAR cycle of planning-acting-reflecting within the teams. Consequently, the project forged among the networks some emerging concepts and principles of communicative spaces to achieve the tripartite goals. The year-long project focused on building upon the strengths and resources of and in each group, forging collaborative partnerships in all phases of the research. If these processes become cyclical and iterative, these emerging principles and concepts in the PAR-influenced TPDP and OJT program may sustain the concept of trust-building, cooperation, collaborations, and partnership.

15.4   Modeling PAR in Education

PAR has brought much benefit to education and has influenced and forged customized models of PAR in education. These models have reached the domains of youth education, community and service learning, health education, university collaborations, graduate education, preservice education, teacher education curricular programs, and even professional learning. PAR scholars continuously explore the education paradigm to find new and unique blueprints to which PAR may be applied to continuously appreciate and relish the benefits PAR offers to education. PAR empowers teachers to document their success and allows them to assess their new environments and address their inefficiencies (James, Milenkiewicz, & Buckman, 2008; Phillips et al., 2010). Thus, PAR is a tool to help provide understanding of classrooms and the learning and teaching phenomenon, a provision that is not usually present in teacher preparation programs (Bloodworth et al., 2004; Milner, 2003), and provides an enabling scheme that empowers teachers, deconstructs traditional societal powers existing in schools, investigates the classroom dynamics, and accents student voices to nurture co-learning and collaborative inquiry that build participants' self-efficacy, an attribute believed to be essential to long-term education (Phillips et al., 2010). Within this framework, PAR becomes a vehicle and a tool to transform systems that produces viable research skills that may be transferable to other models in education (Langhout & Thomas, 2010).

Coupling the PAR-influenced TPDP with the OJT program of preservice physics students launched a new mix of structures working within the principles and methodological paradigms of PAR. This model strengthens significant factors for teacher empowerment: autonomy or control over their decisions and own professional life, impact and ability to influence school practices, their status within school that underscores respect and admiration from their colleagues, opportunities for development and development of their skills, participation in school-related decisions, and self-efficacy or their feeling of ability to be effective (Lightfoot, 1986; Short & Rinehart, 1992). A new breed of students (twenty-first-century students) in basic education (elementary and high school) demands new skill sets from teachers as well; thus embedding supplemental OJT programs in teacher education provides further training and techniques for our future

teachers emphasizing the development of research skills. The dual PAR-influenced program of which OJT is a major section of the professional learning emphasizes how community-service learning helps train preservice physics education students and prepare them as reflective practitioners who can implement and explore all the benefits of collaborative learning and sustain quality inquiry learning in their science classrooms. The preservice students who participated in this dual program exhibited their appreciation of the OJT program through their journals and claimed to learn technical and research skills, such as web and computer skills. Other skill sets identified included using software such as SPSS (Statistical Package for the Social Sciences) and plagiarism tools, transcribing, encoding, thematizing transcriptions, writing literature reviews, searching for journals and literature, and referencing. Thus, combining the PAR-influenced TPDP with the OJT program for preservice science students provided them with concrete assistance. Such assistance was claimed to be of great benefit:

JOEY: "It may seem to provide additional work, but the professional learning helps solve different school-related problems."

JANN: "My skills in observing were enhanced and I was able to ingest many action research concepts."

MAJO: "I heard a wide range of pedagogies and opportunities and strategies for learning from the varied discussions of the professional teachers belonging to the teacher-network I was assigned to."

The rich experience of OJT preservice physics students immersed in the PAR-influenced professional learning (Eilks & Ralle, 2002) provided meaningful insights to the classroom cycle of innovation, evaluation, reflection, and revision. Furthermore, the ideas and suggestions for classroom innovations are constantly set in relation to available evidence from empirical research.

The dual PAR-influenced program (TPDP and OJT) provided long-term benefits to both the inservice science and mathematics teachers and the student trainees. The trainees who are already labeled as teacher-professionals working as senior high school teachers of research courses in their respective schools are assigned by school heads to train their STEM (science, technology, engineering, and mathematics) students and mold them into the young scientists of the country. The technical know-how in research that they acquired in the OJT program provided them skills they use to teach their current courses and subjects while they facilitate AR-framed lessons for their students emphasizing reflective teaching and continuous learning.

JOEY: "I apply the learnings I had in our OJT by letting my students experience how to analyze data."

JANN: "I always emphasize the importance of research by asking them how will their work help their community."

JOAN: "I teach my students the value of research skills and how these skills may be used in different professions."

Vis-a-vis the PAR-influenced OJT, PAR-influenced professional learning generated themes and ideas, which may serve as valuable inputs in attempting to concretize research implementation into practices of science and mathematics

teaching, underscoring theory-information to practice and practice influence to theory. Communicative space emphasizing dialogical processes, negotiations, and analyses is an emergent need in professional learning. The teacher-networks in the PAR-influenced TPDP emphasized social media as an important element in maintaining constant communication between and among teachers in the network. Younger participants, however, preferred face-to-face communication with peers in the teacher network and with the university-research facilitator. Thus, concretizing success in professional learning through a well-established communicative space in the network drives several positive outcomes:

- teachers' valued contributions to learning science and mathematics as they transform their classrooms while conducting AR;
- availability of professional learning where teachers may learn other ways of intervention such as home visitations, varied teaching and assessment styles, and parental involvement for better student engagement and success;
- analysis of the teacher-generated classroom evidences (through assessment for, of, and in learning), specifically qualitative data sets;
- utilization of deduced classroom evidences to inform practices in teaching foundational science and mathematics;
- teachers' clamor for monitoring and guidance in the implementation of their classroom innovations; and
- documentation of theory-informed practice and practice-informed theory.

Significantly, the pioneering dual PAR-influenced program for professional learning and on-the-job-training (apprenticeship framework) cites many positive outlooks and outcomes to inform policies related to foundational science and mathematics teaching and learning, professional learning, and even teacher education programs. Consequently, these efforts for transformation in foundational science mathematics teaching and learning, professional learning through teacher professional development programs, and teacher education apprenticeship programs may eventually lead us to the desired goal – STEAM (science, technology, engineering, art, and mathematics) literacy for STEAM-driven human capital for a knowledge-based society.

15.5 Conclusion

This chapter presented how PAR may be viewed in education. The perspective of PAR advanced in this chapter accentuates education as being a social process that concerns social critical actions. The primary aim was to trace how PAR has thrived in education and how insights from PAR's development may inform how to model PAR in education, which may lead to developing new learning paradigms for STEAM literacy to fuel knowledge, society, inclusivity, globalization, and lifelong learning.

Generations of PAR in the context of education were traced. The first generation presented PAR as an archetype of cooperative action research where researchers promoted action research in education through extensive collaboration between researchers and teachers. PAR's second generation strengthened the idea of

collaboration exemplified in the first generation. The focus was primarily on highlighting critical pedagogy and dialogical reflective methods in seeking understandings and improving teachers' respective worlds by influencing them to change their own world. The idea of "power" becomes central to PAR, sourcing empowerment from interactions of people within the realm of critical reflection. In fact, many researchers (e.g. Kemmis & McTaggart) identified their PAR studies as the root cause of change in their circumstances for the better, allowing them to avoid incidents that they may have otherwise had to endure. The third generation of PAR brought the model to other parts of the world, such as the Asian lands, that emphasized the shift of PAR engagement from social and political reform to PAR in the academe, featuring emancipation of participants. This generation found new triggers, bringing PAR to the territories of the women's movement, the holistic health movement, and the ecological movement, which commenced the fourth generation of PAR. This fourth generation emphasized critical-emancipatory research deducing two general themes that dictate efforts in this generation – activist approach research and links to broader social movements.

These developments in the fourth generation that hover over the entire landscape of PAR represent significant inputs to the education architecture embodying the notions of participants' levels of engagement, conscientization (educating people to learn social, political and economic contradictions and to take action against the oppressive element of reality) and praxis-oriented education. This new PAR embodiment suited the epistemological and methodological aspects of PAR (guided by theories such as post-positivism, social constructionism, and critical theory) in education and how these theoretical frameworks conspire with practice for praxis. Consequently, this activist approach carved paths for PAR to broader social ventures, which included youth engagement, PAR for children, community and service learning, health education, graduate education, undergraduate education, and teacher professional learning. Investment in these theories, concepts, insights, and learning led to the crafting of a unique model PAR in education explicating the triangulation as PAR's methodological paradigm influenced by post-positivist theory through a tripartite network featuring university research facilitators, teacher-participants (science and mathematics), and preservice physics education students. These three targeted groups are believed to represent significant dimensions of STEAM literacy and quality teaching and learning processes in our country, encompassing preservice training, professional learning, and service learning. Significantly, the model framed the concept of the multiplicity of capabilities – teaching the teachers and the future teachers as well, and teaching them AR and PAR processes, while they teach their students science and mathematics investigation. Through the model (tripartite dimension), PAR expands in scope and reach, phenomenologizing the preservice education, professional learning, or teacher professional development (TPD) and service learning in social context, establishing a better sociological stance of education. Education, as a social process, provides venues for learners' engagement in multiple relationships, where they encounter and act within and along all the elements of change, transition, and transformation, recognizing the learning process as a social process. Within and along this path, PAR may thrive and strengthen the collective action research and PAR families, and may even build new PAR structures to further improve the quality of education.

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16

Action Research and Popular Education

Implications for Twenty-First Century Leadership and Research Practices

Linnea L. Rademaker

For decades, scholar-practitioner-leaders have examined and shared their perspectives on popular education activities that were designed to support the public in resisting the status quo and bringing about social justice changes in their communities. Foundational works range from those of Freire in Brazil (1985), with his provocative essays about those in poverty and unable to read as already complete humans and not just empty vessels; to Fals-Borda's (1987) efforts in Colombia and his clear assertions that scientific research to support "radical change" can be "undertaken in Third World countries by local scholars and activists" (p. 329); to Martin's (1999) discussion of popular education in Scotland. Crowther, Martin, and Shaw's (1999) edited volume of the social movements in Scotland included multiple accounts of activism from various social groups. Hall, Clover, Crowther, and Scandrett (2012) continued this tradition with their more recent edited volume of popular education and various social movements. One chapter by Kane (2012) detailed 40 years of popular education in Latin America. Kane concluded, "While it will not single-handedly sort out the problems of a crisis-ridden world, popular education has an important contribution to make to any movement struggling for social justice" (p. 80).

Fals-Borda (1987, 1991) emphasized that participatory action research (PAR) was at the center of the efforts to resist the status quo and promote change. I first experienced the idea of popular education during a visit to the Highlander Center (www.highlandercenter.org) while attending the 2016 Action Research Network of the Americas (ARNA; www.arnaconnect.org) conference. Susan Williams, the Coordinator of the Highlander Library/Resource Center and member of the Education Team, led us in discussions and activities, like those experienced by Highlander Center attendees, such as Martin Luther King, Jr., Rosa Parks, and many others who dedicated their lives to fighting for justice, equality, and peace. This visit inspired my thinking about popular education and action research. Such thinkers and authors as Myles Horton, Paulo Freire, Orlando Fals-Borda, and many others provided narrative accounts of efforts across the globe to recognize the ability of workers, students, and other ordinary (non-academic) people to undertake scientific research and provide evidence to support social

and political changes grounded in alternative approaches to the conception and production of knowledge.

I work and teach in an organizational leadership doctoral program, in which we have students who work in educational, non-profit, medical and religious, and military organizations. Reflecting on my teaching experiences, I thought about the various leadership theories we read and promote, and I was struck by the contrasting ideas in Connolly and Finnegan's (2016) writings, which were based upon their trip to Highlander as part of a workshop on authentic leadership. Particularly, I focused on the authors' discussion of the "Is-Ought fallacy" (pp. 124–125), which is that in describing a quality (which is what many leadership theories do, based on years of survey research aimed at discerning the qualities of *good* leaders), the depiction becomes that required for *good* leadership. In other words, by reducing a *good* leader's qualities to an operationalized definition, we can then extract those qualities and teach them to other individuals in order to create *good* leaders. But, as Highlander promotes, we can position leadership differently – not as being about leading *for* people, but as being about leading *by and with* people – and then we have a different paradigm of leadership that is one of support, one of lifting up, and one of helping our followers help themselves and others. Highlander accomplishes this mission of creating people-centered leaders through the use of popular education and action research (Williams & Mullett, 2016).

In this chapter, I position popular education and action research together as the foundation for leadership. As leaders both learn through popular education strategies and engage in creating knowledge through action research, the hope is that these leaders go into their communities and "multiply" (Horton, 1998). As we think about using action research as part of leadership development, I also consider arts-based research as part of the action research toolbox, as providing ways to represent and situate research in specific contexts. In our applied doctoral program, we teach leaders who can address problems in context, and engage stakeholders in creating mission and visions, identifying problems, and collectively looking for potential solutions informed by co-created knowledge. This, then, is the future of popular education and action research – multiplying efforts throughout organizations. I believe in the potential for using popular education and action research in educating and raising up new leaders. This aspiration also speaks to our need as members of various interconnected communities of which we are a part to sustain and advance democracy into the twenty-first century and beyond.

16.1 Definition of Terms

Popular education – For the purposes of this writing, I will use Martin's (1999) summary, that popular education encompasses both the context and people in the context, and that popular education efforts are implemented by those committed to resistance and change.

Action research (participatory action research [PAR], practitioner research, collaborative research[1]) – I will use Reason and Bradbury's (2008) description:

Action research is a family of practices of living inquiry that aims, in a great variety of ways, to link practice and ideas in the service of human flourishing. It is not so much a *methodology* as an *orientation to inquiry* that seeks to create participative communities of inquiry in which qualities of engagement, curiosity, and question posing are brought to bear on significant practical issues. (p. 1)

Critical action research – Most popular education writers agree that popular education is inherently political, and also tied to PAR efforts. Therefore, I am also including the term critical action research as representative of the intertwining of popular education and action research, much as Fals-Borda (1987) described: "… processes of radical change include scientific research, adult education, and political action combined" (p. 329).

Social justice – Within critical action research efforts, authors often have written about purposes of social justice. Finding and correcting social inequalities within our own contexts is at the core of social justice practice and popular education (Lykes & Mallona, 2008).

In presenting these terms, I am providing readers with a foundation for understanding my discussion of both the history and the future of popular education and action research. These terms are the ones most used by authors who have written about popular education and action research, and are terms worthy of further discussion, as I look at implications for leadership and multiple representations of knowledge, including arts-based research.

16.2   Organization of the Chapter

In this chapter, I will provide a brief picture of how popular education has been used in resistance and change movements through history, including work done through the Highlander Center. While highlighting the intersections of popular education and action research, I will also make connections to leadership and to alternative forms of knowing and representing newly created knowledge via arts-based research. Knowledge democracy and knowledge creation through popular education and action research are essential actions and outcomes of leadership "by and with" people. Finally, I will look at the field of leadership studies and arts-based research to show how the merging of these fields with action research and popular education can further social change and social justice movements.

16.3   History of Popular Education and Action Research

Several authors have provided in-depth narratives of the history of popular education and action research over the past three decades across countries, cultures, and political/social movements; consequently, I don't feel the need to

duplicate their efforts. However, they do deserve mention as the foundation for my analysis of the shared journeys of action research and popular education. For example, Fals-Borda (1987) detailed the inclusion of PAR as central to popular education efforts in Latin America since 1970. Glen (1993) provided a moving narrative on the history of the Highlander Center and its role in supporting and bringing local people together to share and address social problems. Many have written how learning at Highlander enabled and empowered them to act and make changes in their contexts. Crowther, Martin, and Shaw's (1999) edited volume on popular education in Scotland included five chapters by various authors on *historical perspectives* of popular education in Scotland. Brown (2006) looked at the labor struggles in Australia, and showed the links between popular education and that history. Lykes and Mallona (2008) synthesized literature on PAR and *transformational liberation* in Reason and Bradbury's (2008) second edition of the *SAGE Handbook of Action Research.* Lykes and Mallona provided important historical contexts for the global use of PAR in support of political resistance and change efforts.

Further, Flores-Kastanis, Montoya-Vargas, and Suárez (2009) contributed a chapter on PAR in Latin American Education in Noffke and Somekh's (2009) *SAGE Handbook of Educational Action Research.* In their chapter, the authors provided illustrations that showed PAR (or educational PAR) was alive and well in Latin America, despite a lack of presence in scholarly journals during the first decade of the twenty-first century. This "lack of presence," as I argue in the final section of this chapter, is a key issue as to why we, as a community of scholars and leadership educators, need to rethink purposes and methods of dissemination in popular education and action research. Finally, Steele (2010) provided a brief history of popular education in Europe, highlighting key movements, and tied these movements to current efforts across the globe.

Below, I detail key studies in which researchers illustrated how popular education and action research were the springboards for resistance movements (resistance to oppression, control, marginalization, suppression, etc.); how they were part of social justice change initiatives; and how the work of the Highlander Center supported both resistance and change in the United States. Reminding ourselves about the history of popular education and action research can help us re-imagine the future with social justice for all.

16.4 Popular Education and Action Research as Resistance

First, I want to revisit the definition of popular education, as created by members of the Popular Education Forum for Scotland (Martin, 1999):

> Popular education is understood to be popular as distinct from merely populist, in the sense that:
> - it is rooted in the real interests and struggles of ordinary people
> - it is overtly political and critical of the *status quo*
> - it is committed to progressive social and political change. (p. 4)

The second point, which asserts the "overtly political and critical" nature of popular education to challenge the status quo, serves as a significant factor to leadership and to followers. People use the term *status quo* when referring to the way things have always been, or the way things are done. Status quo also implies a set of unspoken values, attitudes, and beliefs about a particular concept or institution. Those not affected negatively by the status quo may worry about disturbing what has always been, since it works well for them. But others, who are affected negatively by the way things have always been, may decide to resist the status quo. Public school in the United States is a good example of how the values, attitudes, and beliefs of those with power over public schools have changed through the years, often due to groups of people resisting those attitudes, beliefs, and values in order to improve society as a whole and provide beneficial outcomes for a broader segment of society.

But, as Zipin and Hattam noted (2009), many of those efforts to change schooling structure, goals, and outcomes have met with "acute obstacles" (p. 508) from those who may fear losing actual or notional benefits. Implementation of that challenge to the status quo is what I term as *resistance*, and is necessary for *change* to occur. Resistance requires people who are negatively affected by the status quo and those who are committed to social justice to challenge that status quo. Many authors have documented the resistance that is inherent in various movements throughout the history of action research. Some resistance is deeply rooted in histories of oppression. Other resistance is rooted in a desire to challenge and change the way things have always been done.

With regards to education, and as an example of how values, attitudes, and beliefs are the foundation of resistance movements, Brown (2006) wrote about the conflicting values between conservative government members and the labor party in Australia in the 1980s and 1990s. The labor party and its allies worked to reform education to meet the needs of an economy that was moving away from manufacturing. But when the conservative party gained power in 1996, they worked to slow the efforts of the labor party by keeping education focused on training an industrial workforce (Brown, 2006), representing conflicting values, beliefs, and attitudes about the purpose of education. In analyzing the failure of the labor party and its allies to reform education, Brown noted how their work became much more centralized, and lacked representation from those who were affected by the issues. Brown connected this lack of worker representation with historical issues from Marxist uprisings, specifically that gaining worker participation was difficult.

To further illustrate participation issues, Meade and O'Donovan (2002) provided an editorial for a special issue of the *Community Development Journal* in which the authors defined *corporatism* and how this concept was at the heart of the conflict between government interests in Ireland and community development efforts. In this context, the authors used O'Carroll's (2002) definition of corporatism in which he described the work of the government as developing the economic interests of the country by making agreements with various organizations within the country. However, O'Carroll noted the failure of such agreements in that they "fail[ed] … to realise the extent to which institutions, not only co-opt all who operate under their auspices, but also legitimate the status quo

and neutralize the best efforts of their critics to develop an alternative framework for addressing social problems" (p. 13). In other words, stakeholder participation at all levels is key to finding solutions, but was absent in previous cases I've used as examples. O'Carroll's argument continued, as he suggested that corporatism by its very nature and inherent values (of the corporate entity, in this case, the nation) prevented the natural give and take or critical discussions needed to advance a democracy. Consequently, new ideas were often seen as being against the best interest of the nation, and the growing complexities of a global economy were not considered to help shape policies. Social problems continued, and community resistance continued to grow.

Addressing community participation, Luckett, Walters, and von Kotze (2017) used a participatory research approach (PRA) to form a narrative of popular education as central to the resistance movements in South Africa. Again, as in other discussions of popular education and PAR, PRA "demands that knowledge is constructed collectively" (p. 258). The authors' purpose was to provide space for remembering how grassroots efforts resulted in change, but, also, to illuminate how those efforts were conceived of and implemented. Central to their purpose is the idea that popular education can help members develop and use critical interaction, critical analysis, and dialogue, which O'Carroll (2002) noted is crucial to the development of a healthy democracy.

Seeking to illuminate successful elements of popular education movements throughout European history, Steele (2010) described various popular education efforts (in various forms) since the middle ages. Much of the early movements were centered around resistance efforts against the last strongholds of feudalism and ruling families. As the church and ruling governments tried to suppress people's access to education, popular education efforts circumvented this suppression. With an educated populace came questioning, science, religious reforms (e.g. the Protestant Reformation), and other efforts that fractured the controlling hold small families and the church had on the vast populace across Europe. These movements formed out of *resistance* to the status quo, and were necessary for change to occur. In the next section, I will discuss how these change efforts are centered in popular education and action research work and how participation is required for change to occur.

16.5   Popular Education and Action Research as Change

Fals-Borda (1987) defined PAR as organized efforts to:

> initia[te] and promot[e] … radical changes at the grassroots level where unsolved economic, political and social problems have been accumulating a dangerous potential. PAR claims to further change processes in constructive non-violent ways due to its emphases on awareness-building processes … " (p. 329)

Fals-Borda reflected on these efforts that occurred throughout Latin America in the mid-twentieth century and asserted that resistance, or *positive confrontation*, was necessary "in order to halt the destructive forces being unleashed in the world" (p. 332). Resistance must come first, before change can occur. Fals-Borda summarized the processes of PAR in Latin America: "(1) learning to interact and organize; … and, (2) learning to know and recognize ourselves as a means of creating people's power" (pp. 332–336), all of which included knowledge creation and context-dependent actions. Similarly, Flores-Kastanis et al. (2009) detailed how PAR efforts in Latin America were to provide space for dissemination of new knowledge. Flores-Kastanis et al. recognized that while Fals-Borda's life and work demonstrated the tension he felt between the knowledge of the academy and the knowledge of the people, today's versions of PAR, especially in Colombia, have merged toward a new paradigm in which both forms of knowledge (scholar and practitioner) can co-exist. Fals-Borda (1987; Fals-Borda & Rahman, 1991) and Flores-Kastanis et al. (2009) addressed the issue raised earlier, which was the difficulty of garnering authentic participation from the people most affected by lack of change and the need for change.

In describing five community development/popular education initiatives, Brydon-Miller et al. (2009) noted that organizational diversity makes methodological consistency difficult. In their chapter, the co-authors provided narratives of the ways each of their organizations "understand popular education, how they used these popular education strategies as a component of their action research practice, and how they have each developed distinctive strategies" (p. 496) to support organizational missions, goals of participation, and social justice through action research. As scholars, we must continuously be critical of our work, looking toward improvement. But, looking at positive examples of collaborations (their successes and challenges), such as Brydon-Miller et al.'s (2009), can support future collaborations – both in design and in implementation.

Brydon-Miller et al. (2009) wrote about The Foundation for Contemporary Research (FCR) in Cape Town, South Africa; The Institute for Community Research (ICR) in Hartford, Connecticut; The Ignacio Martín-Baró Fund for Mental Health and Human Rights (MBF) of Central America; The Society for Participatory Research in Asia (PRIA) in New Delhi, India; and The Highlander Research and Education Center in New Market, Tennessee. The authors provided a description of their shared values that supported efforts in such diverse contexts, which included supporting peoples who had been previously "excluded from more traditional systems of schooling to take ownership of their own knowledge and experience, to connect it to broader realms of knowledge, and to use it in collaborative action research to engage in a struggle for social and institutional change" (p. 500). In essence, the authors described what I would call a bridge between popular education and collaborative action research, both owned and implemented by those who were previously oppressed or excluded from decision-making.

However, the authors acknowledged that they encountered challenges to their efforts to support practitioner knowledge creation. Traditional power structures in academia, for example, continued to question the value of practitioner knowledge. The authors also described challenges within the organizations in assessing

needs of staff and making sure that they modeled what they were promoting in their work, which was to create an inclusive and listening atmosphere in which all members had a voice and active participation. A third challenge is dissemination of findings, especially when funders or the public are skeptical. The authors raised, as I noted earlier, the "risk of challenging the status quo" (p. 505) and that public education efforts and action research results may be a challenge to those in power. Storytelling – creating stories that are accessible and put the abstract concepts of public education and action research for social justice into distinct contexts with real people as actors in those stories – is key in these efforts. As I will note later, storytelling is a key focus of both arts-based and narrative research, which will be essential to the future of both action research and popular education in continuing to bring these efforts into the public domain.

Reaffirming purpose for popular education and action research, Lykes and Mallona (2008) described their "life-work … to rearticulate our *preferential option for the poor* within global communities of the 21st century" (p. 107). They brought the potential of PAR to communities, and helped the communities liberate and transform themselves. Yet, Lykes and Mallona's contributions – along with those of many others with admitted power and privilege – addressed the challenges of building trust and of building capacity for PAR – change is difficult. Lykes and Mallona, working from within a US-based university, but reaching out globally to communities where poverty is entrenched and ingrained, participated as co-researchers, utilizing their identities to create connections with communities, "identifying common concerns and common issues, and articulating global actions that could lead to global solutions" (p. 117). Therein lies the tension – that of wanting to help, but also wanting to not direct efforts so that they co-opt decision-making and knowledge creation from the people and communities they seek to support.

16.6 The Highlander Center

The Highlander Center, mentioned earlier in the introduction and when I wrote of Brydon-Miller et al.'s (2009) account, was established in Tennessee by Myles Horton in 1932. Horton's work with locals to solve problems of poverty and social justice issues was part of the beginnings of his popular education efforts throughout Appalachia that continued through the civil rights movements of the 1960s and are carried on today, led by Susan Williams (Glen, 1988, 1993; Williams & Mullett, 2016). Some count *listening* as the central, and replicable, process underpinning popular education and action research efforts at Highlander.

Horton (1998), director of Highlander for many years, described his mission as one of working with "poor, oppressed people" (p. 57) and the work of the center as education toward multiplication. "I realized that if I was going to develop a program where people could multiply themselves, I needed to know what these people should learn to do. Clearly, they had to learn to value their own experience, to analyze their own experience and to know how to make decisions" (p. 57). Horton wrote of experiences leading union organizing, working in the

civil rights movement, and even experiencing death threats. At one point, the authorities padlocked and shut down Highlander. Everything that Highlander supported was in the furtherance of social justice and human rights. Multiplication of efforts was key. Horton told workshop participants, "For your organization to work, you have to go home and do what we've done here" (p. 167).

Horton (1998) discussed many topics in his autobiography, including democracy and how his definition had changed over the years. He discussed the role of the Citizenship schools during the civil rights movement and how hundreds of thousands of people were affected or influenced by these schools. Most of all, Horton discussed action. He wrote that radical social movements require participation, similar to Fals-Borda's (1987) assertions about the importance of action. "A large social movement forces people to take a stand for or against it, so that there are no longer any neutrals" (Horton, 1998, p. 114). Horton and Freire didn't meet until the 1970s and began discussions about their similar and diverse thinking about popular education in the 1980s (Horton, Freire, Bell, Gaventa, & Peters, 1990). Horton and Freire discussed topics such as the difference between organizing and education. Horton viewed them as separate and that education was needed in order to organize effectively. Freire viewed education as inherent to the idea of organizing – learning occurs during and within the process of organizing.

16.7   Action Research and Popular Education as Knowledge Democracy

More recently, authors have used the term *knowledge democracy* (Gaventa, 1991; Hall & Tandon, 2015; Pine, 2009; Rowell, 2016; Rowell & Hong, 2017), which represents the actualization of popular education, action research, and democracy. Whereas popular education is education to help the marginalized participate fully in their communities (the creation of, the improvement of), and action research is a tool that can be used to create knowledge, *knowledge democracy* is the concept of normalizing all types of knowledge, and the active work community members do to remove the privileging of particular types of knowledge promoted by those in power. Pine (2009) wrote of the need for teachers to provide the "intellectual leadership for nonhierarchical, egalitarian, participatory, collaborative, and democratic construction of knowledge" (p. 26). Pine's ideal contrasts with what I've seen within most school contexts in which I've worked, where teachers were told what to teach, how to teach, and were evaluated on how well students performed on standardized tests. Instead, in Pine's description, "inquiry permeates every aspect of the school's organization, programs, activities, and culture" (p. 26). Rowell and Hong (2017) delineated many of the sound reasons as to why the term *knowledge democracy* was developed, echoing the sentiments of those who'd written about research with indigenous peoples and the concept of *decolonizing* knowledge.[2] Hall and Tandon (2015) provided the most comprehensive definition of knowledge democracy in their essay on the conference website for the conference Public Engagement and the Politics of

Evidence in an Age of Neoliberalism and Audit Culture, held on July 23–25, 2015, at the University of Regina, British Columbia:

> Knowledge democracy refers to an interrelationship of phenomena. First, it acknowledges the importance of the existence of multiple epistemologies or ways of knowing such as organic, spiritual and land-based systems, frameworks arising from our social movements, and the knowledge of the marginalized or excluded everywhere, or what is sometimes referred to as subaltern knowledge. Secondly, it affirms that knowledge is both created and represented in multiple forms including text, image, numbers, story, music, drama, poetry, ceremony, meditation and more. Third, and fundamental to our thinking about knowledge democracy is understanding that knowledge is a powerful tool for taking action to deepen democracy and to struggle for a fairer and healthier world. Knowledge democracy is about intentionally linking values of democracy and action to the process of using knowledge. (http://www.politicsofevidence.ca/349)

Gaventa (1991) concluded that PAR "seeks to break down the distinction between the researcher and the researched" (p. 121) through equalizing the participation among all. In this section, I will discuss how knowledge democracy can be furthered by PAR and popular education. As we work to support community members in learning to create knowledge, we can also support them in helping them to identify and solve problems in context. Critical to this section is the focus on action and interaction, working together to support the equalization of power that is the transformation that comes from knowledge democracy. As leaders, then, the emphasis is on shared knowledge creation, again working with and alongside stakeholders.

16.7.1 Action Research and Popular Education: Learning through Working Together

Many popular education proponents consider action research as central to the concept of *knowledge creation* (Carrillo, 2010; Fals-Borda, 1987, 1991; Freire, 1998; Horton, 1998). Freire (1998) stated that "to teach is not *to transfer knowledge* but to create the possibilities for the production and construction of knowledge" (p. 30). Constructing knowledge is central to the foundational tenets of action research, because, as Gaventa and Cornwall (2008) noted, "power and knowledge are inextricably intertwined" (p. 172). In teaching, for example, many contexts now include scripted curriculum, and strict adherence to schedules and texts. This may leave teachers feeling a loss of autonomy and self-efficacy in being able to solve teaching problems in context. Pine (2009) wrote specifically of teacher action research as a paradigm, not a method, in which teachers owned the knowledge they created that supported good teaching and student learning. In turn, teachers can use their new knowledge to challenge the power constructs that dictate outcomes that support the status quo. As Flowers (2004) wrote: "Popular education is not simply about making education more accessible to grassroots people. It is about designing education so that the knowledge, values,

and perspectives of grassroots people is privileged and shapes the curriculum" (p. 13). These authors wrote of the importance of multiple forms of knowing and that all forms had equal value.

Respecting all forms of knowledge does not exclude the use of expert knowledge. Participatory action research is where those without research procedural skills (such as teachers or community members) can work together with an action research support person (such as a university researcher). This research support person can support teachers, as one example, as they identify specific student learning problems, shape the curriculum and pedagogy to meet the needs of students, and advocate to district administrators and school boards for appropriate teaching practices in their districts and classrooms, as Pine (2009) suggested. However, as some have suggested, PAR can be conceived of in several ways, including ways in which the *expert*[3] controls the project goals and agenda. The goal of popular education is to help local members find and solve problems. The *expert* must adopt the humble stance of providing support where needed, and standing back when not. Teachers, even as *novice* researchers, must retain the autonomy to define and solve problems in context. This can be more difficult than it sounds, as the impulse to do things correctly, or in a scientific manner, can be overwhelming. Horton (Horton et al., 1990) discussed using experts to provide people with information, but was adamant that the people decide how to use that information. "[The] use of expert knowledge [by the people] is different from having the expert telling people what to do, and I think that's where I draw the line" (p. 130–131).

I wrote about this issue of novice/expert knowledge with my teacher colleagues (Rademaker, Henry, & Gustafson, 2015) in a chapter in Lattimer and Caillier's (2015) edited volume of PAR in schools across the United States. In our case, I was the university researcher *expert*, and my writing colleagues were public school teachers. I struggled to balance the teachers' need for advice and my need for rigor with the teachers' desire and my desire for the teachers to retain control of the direction of the project. The university researcher can work as a popular educator in helping teachers find ways to use action research tools and methods to meet teachers' needs. However, the balance I speak of is the ideal, and it is difficult to achieve. Horton (Horton et al., 1990) told his story of working with a strike committee during a strike in which many community members were trying to break the strike. At one point, in frustration, the strike committee turned to Horton and said, "Well now, you've had more experience than we have. You've got to tell us what to do. You're the expert" (p. 126). Horton resisted, " … I don't know what to do, and if I did know what to do I wouldn't tell you, because if I had to tell you today then I'd have to tell you tomorrow, and when I'm gone you'd have to get somebody else to tell you" (p. 126). This, then, is the tension I face as I work to support teacher action research: how can I help teachers really own this knowledge, so that the knowledge creation continues once I'm gone?

Many have written critically of PAR (see, for example, Gaventa & Cornwall, 2008) and the *experts'* motivations for engaging in such research (i.e. tenure, promotion, academic honors). Fals-Borda (1987) wrote of this tension between the novice and the expert, which he called the "internal and external" actors. While acknowledging that both actors are critical to transformation, and that

both actors bring different strengths to the transformative action, that tension can only be resolved through "practical commitment, that is *praxis*" (p. 332). The resulting co-created knowledge is the transformation. "Academic knowledge plus popular knowledge and wisdom may give as a result total scientific knowledge of a revolutionary nature ... which destroys the previous unjust class monopoly" (p. 332). Jones (2015) noted this tension as well supporting *youth-led* action research, and openly discussed her struggle to "let go" and let the students find things out for themselves. While Jones's first impulse was to protect the students from unpleasant interactions with people in power, she later asserted "Had I not [let go of control], I would have prevented students, inadvertently, from investigating important issues that affect the quality of their education" (p. 115).

As Fals-Borda noted, all involved (novice and expert) must experience the work of learning and action (popular education and action research) in order to gain this transformative knowledge. In my experience working with teachers, I stated that I was reluctant to insert my *expert knowledge*, which in this case I felt was only about research methods. The teachers with whom I worked told me later they were reluctant to analyze data and present conclusions, wanting to defer to me as the *expert*. Fals-Borda (1987) described novice/expert issues when he wrote of the work conducted in Nicaragua. The members of the local commission had to learn about research methods, but were reluctant to participate in academic exercises, such as data collection. For true transformation to occur, both the novices and the experts must be fully participative and acting in the experience. In Fals-Borda's account, the "experts" waited in silence until the "novices" worked to find answers. Fals-Borda described these experiences as entrenched behaviors on the part of the community members to let someone else make decisions. "If the old habits of submission and dependency had not been broken in El Regadio, the community census would have failed" (p. 333). To break the cycle of "submission and dependency" and to help members own the knowledge they created, full participation had to occur.

Wicks, Reason, and Bradbury (2008) underscored the importance of participation as they wrote about their inquiry of editorial board members in preparation for editing an earlier handbook on action research. All respondents confirmed "living life matters" (p. 15–16). What this meant was that board members' responses were filled with personal stories and descriptions of the participatory lives in which they engaged. Many members spoke of the interconnectedness of theory and practice, and of the interconnectedness of themselves and the people with whom they lived and worked. Wicks et al. summarized board members' ideas by asserting "... each person's understanding and practice of action research does not stand in isolation from other aspects of their being-in-the world; instead, action research both emerges from and contributes to a complex and panoramic view of the world in which one lives and one's own particular place within it" (p. 17). Their description of being in, living in, and acting in the world fits well with Fals-Borda's (1987) description of "full participation" necessary for transformation to occur. Indeed, at the time Wicks et al. (2008) wrote their chapter, Fals-Borda was one of the members of the editorial board. I was struck by the powerful stories retold by Wicks et al. that evidenced board members' lives and work and interconnectedness.

I will address storytelling, as research, in a later section on implications and the future of action research and popular education.

Some authors have written about using popular education and action research to support critical thinking about social action for environmental causes. Whelan (2005) wrote about environmental education efforts in Australia and how popular education purposes and structures were better suited to support change in environmental practices throughout the country. Specifically, Whelan noted that traditional education methods toward environmental education, which included leaflets and flyers, lectures, classroom education, and public displays, failed to create the action toward the environment that the government desired. Instead, using experiential education and education *as, for*, and *through social action* (p. 120), environmental outcomes were achieved. Educators worked to develop trusting relationships in various communities, as described by Whelan, and helped community members own the positive social change resulting from the knowledge the community created and implemented. Again, we see the theme of action as central to learning; for action research, we must learn (construct knowledge) and then take action.

As I mentioned in the introduction, Connolly and Finnegan (2016) described a leadership workshop they took at the Highlander Center. They addressed the seeming conflict between Highlander's mission of "rethinking power, knowledge, and participation" (p. 123) and examining leadership, which may be traditionally conceived of as someone who possesses authoritative traits who can motivate followers to adopt their vision. Instead, by using popular education as a tool for learning about leadership, the authors found that their questions about leadership changed from an individual perspective to a collective perspective. Highlander promoted collective problem-solving, and saw the leader's work as bringing together stakeholders to collectively discover, own, and solve problems in context (action research). In their final assertion, the authors declared their hope for popular education, which mirrors my argument in this chapter: "We believe participatory democracy on a global scale, requiring active, informed, critical citizens and a whole new conception of leadership, offers the most likely and perhaps the only progressive road toward the future" (p. 126).

16.7.2   Action Research as Positioning Knowledge outside of the Academy

Using Flowers' (2004) definition, we can see that popular education can most often be found outside of the academy. People can create knowledge to examine their own contexts. Hall et al. (2012) noted in the preface to their edited volume on social movements and education, "Individuals and communities can and do come to develop critical and more creative understandings of their situations, just as they can and do come to develop critical and creative strategies for change" (p. vii). Hall et al. provided space to celebrate the merging of resistance to the status quo with education toward change. The documented social movements occurred outside of the academy, although researchers from within the academy often joined in these movements. One example within Hall et al's volume is Harley's (2012) chapter, in which she wrote of the "grassroots social movements

in South Africa" (p. 3) and focused on how the leaders of change in South Africa created knowledge through their work in social activism, which Harley, then, worked to adopt for adult education programs within the university (bringing knowledge into the academy from outside).

Freire (1998), ever critical of the power construct inherent in knowledge created within the academy, existed within the intellectual sphere, and justified blending existing and new knowledge: "… it is as necessary to be immersed in existing knowledge as it is to be open and capable of producing something that does not yet exist" (p. 35). Theory and practice are intertwined, each informing the other in a lifelong cycle of learning, knowing, and doing. In the applied research program in which I now teach, we must constantly help students confront problems in their context, and juxtapose their contextual knowledge (of which I usually know little) with the new theoretical and research methods knowledge that I present. In many of our courses, we ask students to apply the theoretical to the concrete – that is, to take the "book learning" and discuss how they would apply it (or how they have applied it) in real life to improve organizations, to solve problems, and to create new knowledge about the contextuality of their work.

Researchers have documented many action research projects positioned outside of university control (see, for example, Fals-Borda & Rahman, 1991; Flores-Kastanis et al., 2009; Lattimer & Caillier, 2015; Wicks et al., 2008). Griffiths (2009) detailed the nature of social justice as purpose in action research, and posted a number of questions that help support social justice purposes. Most of her questions point to stakeholder inclusion (and not just inclusion, but ownership) and interaction, from problem identification to solution and conclusions. Whitehead (2017) created the term *living theory* to delineate the idea of practitioner-created knowledge in context. "I put forward the idea of a living educational-theory as an individual explanation of educational influence to ensure that these practical principles – knowledge from practice – were not lost and replaced by principles from the disciplines of education" (p. 390). In essence, knowledge created in context is inseparable from that context and the people within it. As such, the theories and knowledge created about problems in context are *living theories* in that they represent living processes and experiences. The theory as crafted to represent a context continues to change as those within the context dialogue about the theory. Thus, Whitehead described the epitome of knowledge created outside of the academy, as the theories created must be acknowledged as linked to the people and context from which they were drawn. In the next section, I will extend the discussion of knowledge creation to the future of action research and popular education to support continued social change and social justice.

16.8   Action Research and Popular Education in the Twenty-First Century and Beyond

Now we come to the "so what" of this chapter, which I have separated into two key issues, or questions: (i) How can we utilize popular education and action research in the twenty-first century to further leadership studies in order to develop leaders who can co-create knowledge that is practitioner-focused, context-dependent,

and stakeholder inclusive?; and (ii) How can we expand our "ways of knowing" (Eisner, 1985) to include and value multiple forms of knowing as representations of new knowledge and new contexts (Hall & Tandon, 2015)? I had the privilege of taking an arts-based research workshop with Tom Barone and Elliot Eisner. The idea of arts-based research was new to me, and difficult for my semi-positivistic brain to comprehend. I was a planner and a big-picture person, and I was trying to insert this new knowledge into my very complete portfolio of knowledge that I already had from my studies. At the end of the workshop, I sat next to Eisner and said (and I paraphrase a little from 20 years ago), "This is so hard for me. I don't understand how I can conceive of this and do this type of work." Very calmly, Eisner replied, "But, that's it. It's the struggle that's important. The thinking and the struggle." As I've worked to enjoy the struggle and pay homage to Eisner (anywhere I can bring Eisner into my work, I am happy to do so) and to my dissertation chair, Liora Bresler (who earned her doctorate under Eisner's tutelage), I've tried to blend concrete knowledge and abstract knowledge in my work and life. Because of this, I choose to focus on leadership and data literacy, arts-based research, and how both are inherent in action research and popular education, and are essential for growing and sustaining a democracy.

16.8.1 The Critical Need for Data Literacy and Practitioner-Leaders

In my teaching practice, we use the term "data literacy" to represent a leader who can create and use research to inform practice and participation in context. Data literacy is a term used by many, but that can mean a variety of things depending upon the context. Some have suggested that data literacy is "statistical literacy" (Gould, 2017), while others have equated data literacy with information literacy (Koltay, 2017). Gummer and Mandinach (2015) suggested a broader definition for data literacy in teaching:

> The ability to transform information into actionable instructional knowledge and practices by collecting, analyzing, and interpreting all types of data (assessment, school climate, behavioral, snapshot, longitudinal, moment-to-moment, etc.) to help determine instructional steps. It combines an understanding of data with standards, disciplinary knowledge and practices, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn. (p. 2)

Defining data literacy broadly is important, because, as Gaventa and Cornwall (2008) wrote, knowledge is power and whoever holds the power defines what counts as knowledge. If we can empower more people to create knowledge, and knowledge that they apply in their own contexts, then power-supported definitions of knowledge may hold less and less weight in decision-making, as long as these new leader-practitioners continue to work to include stakeholders in knowledge co-creation. This is why I work for and support leadership programs that help to develop practitioner-leaders. The Carnegie Project on the Education Doctorate (CPED, www.cpedinitiative.org) addressed some of these issues with their stated principles that an education doctorate:

- Is framed around questions of equity, ethics, and social justice to bring about solutions to complex problems of practice.
- Prepares leaders who can construct and apply knowledge to make a positive difference in the lives of individuals, families, organizations, and communities.
- Provides opportunities for candidates to develop and demonstrate collaboration and communication skills to work with diverse communities and to build partnerships.
- Provides field-based opportunities to analyze problems of practice and use multiple frames to develop meaningful solutions.
- Is grounded in and develops a professional knowledge base that integrates both practical and research knowledge, that links theory with systemic and systematic inquiry.
- Emphasizes the generation, transformation, and use of professional knowledge and practice. (http://www.cpedinitiative.org/page/AboutUs)

These principles would seem to support both popular education and action research as foundational to the education doctorate. Remember Martin's (1999) definition of popular education I quoted earlier in this chapter:

> Popular education is understood to be popular, as distinct from merely populist, in the sense that:
>
> - it is rooted in the real interests and struggles of ordinary people
> - it is overtly political and critical of the *status quo*
> - it is committed to progressive social and political change. (p. 4)

When you add to that the principles of PAR, which include:

> Action research is a family of practices of living inquiry that aims … to link practice and ideas in the service of human flourishing … (Reason & Bradbury, 2008, p. 1)
>
> … processes of radical change include scientific research, adult education and political action combined (Fals-Borda, 1987, p. 329)

then, you can see how the Carnegie principles merge with action research and popular education.

While the prevalence and expansion of the education doctorate (EdD) may continue the power differential in some cases, in other cases program faculty and students are actively working to promote data literacy – in this case research methods literacy – to promote social justice and advocacy in specific contexts, and exemplify the CPED principles. As an example, Demirbag (2015) wrote of her own journey through an EdD program in Hawaii and how she expressly worked to advocate for small school districts in Hawaii that were perceived as financially unstable:

> In conducting action research, I felt personally called to represent Maui's small independent schools. Specifically, I wanted to relay the schools'

> voices to the local accrediting organization in order to help it understand the financial sustainability of these schools … What might look numerically like a financially weak situation might not be the definitive explanation for a school's success or failure" (p. 239).

Demirbag continued by describing how she helped the schools, who had created their own knowledge about the sustainability of each context, to measure, document, and communicate their strategies to the accrediting bodies and to inform them about how they remained financially sustainable through their own unique strategies and definitions of sustainability. Here we see an example of Horton's (1998) "multiplying," as Demirbag (2015) demonstrated her own learning, application, and teaching in context. Demirbag challenged the status quo and the definition of sustainability created by those in power by presenting alternative definitions and evidence from these small schools.

Current leadership theories include the popular terms *servant leadership, transformational leadership*, and *authentic leadership*, each designed to present a theory of leadership which can help organizations progress in the twenty-first century, and include greater connection and communication with those we are leading. Glowacki-Dudka and Griswold (2016) conducted a case study of workshops they held at the Highlander Center on authentic leadership. In these workshops, participants wrote about their "experiences through reflective writing" (p. 105). Glowacki-Dudka and Griswold highlighted the benefits of popular education methods that can support "shared leadership roles … where everyone is the expert" (p. 111). The authors emphasized that for such shared leadership to occur, participants must feel a sense of "trust and safety in the environment" (p. 111). But, as we shared Connolly and Finnegan's (2016) work, also situated within a leadership course at Highlander, we must take care not to promote (as I noted earlier) the *is-ought* fallacy, which is that leadership traits are important simply because they exist. Instead, our focus as leaders and our questions must address the problem of practice, the context, and the stakeholders. As leaders, we must work to support the collective identification and solving of problems in context.

In our 2017 presentation for the Action Research Special Interest Group (SIG) of the American Educational Research Association (AERA), Polush and I argued the need for methodological plurality, merging the evaluation and action research fields to support both knowledge mobilization and knowledge democracy (Polush & Rademaker, 2017). We chose to blend these two fields (evaluation and action research) in which we've both worked extensively, in order to show how the two fields share various theories and discourses, and to create a foundation for sharing methodological knowledge as a form of public education – both in the training of future leaders and in helping leaders train and include stakeholders.

Highlander principles for raising leaders who can fight for democratic principles and social justice use popular education and action research to "help people gain knowledge, hope, and courage, expanding their ideas of what is possible" (as cited in Williams & Mullett, 2016, p. 98). Williams and Mullett noted that often "people do not realize how important" planning is to successful action (p. 101),

and this is where leadership programs can support leaders in their development, as new leaders work to create social action and change. In our leadership program, for example, we emphasize planning throughout the program, and link the dissertation to the coursework, so the student is cognizant of the work needed to complete a dissertation. But, more importantly, we emphasize repeatedly that the problem studied in the dissertation must be a problem of practice. The student should situate that problem in the literature of those who've gone before, but the problem must be uniquely tied to practice. We help students visualize their problem of practice through various content courses, as well as diverse methods courses in quantitative, qualitative, action research, and evaluation. Once the student has successfully identified and studied a problem of practice, an additional issue remains – that of how to disseminate our work and students' work, which is where I believe contextualization and storytelling dovetail.

16.9   The Contextualization of Problems – Storytelling and Arts-Based Research as Popular Education

Many accounts of PAR and of popular education include stories and narratives from observers and participants. Stories provide much-needed narratives about the actors and the context in which the research took place. Such methods for dissemination of PAR and popular education outcomes fall under participatory research approaches (Fals-Borda & Rahman, 1991; Kemmis & McTaggart, 2005; Torre, Stoudt, Manoff, & Fine, 2018) and arts-based research approaches (Finley, 2005, 2018). Denzin (2018) raised the issue of the dominant research models still in use that represent what Denzin called a "global audit culture" (p. 839), and that we as researchers must resist by providing a "counter-narrative," which I am interpreting as a blending of PAR and arts-based research in the service of leadership education and knowledge democracy.

Many have written promoting both participatory and arts-based research as legitimate forms of research over the past 30 years, and both approaches have become more accepted in mainstream academic circles. Torre et al. (2018) wrote of the "global movement for community-based critical participatory action research" (p. 492) and the importance of owning the research. In their stories, they exemplified what it means to own the research. Traditionally, research focus is often a creation of the power elite, designed to hide failings and maintain the status quo. Torre et al. (2018) and others call for continued documenting of PAR efforts as a means of persistent resistance against power dominations. Finley (2005, 2018) wrote specifically of the connection between arts-based research and political resistance. Finley (2018) also spoke of the importance of engaging in political resistance, but with arts-based research:

> Living as we do in the continuing tsunami of political conservativism, neo-liberal discourse, and "evidence-based" public policy, as we continue to accept as a given the economic gulf between the haves and the have-nots, nationally and globally, and while U.S. police forces assassinate youth in the streets of our cities, we entertain and are entertained by political candidates' utterances of ethnic slurs toward immigrant populations. (p. 562)

As popular educators before her had done, Finley summarized the purpose of critical arts-based research as that of promoting social justice. Chilton and Leavy (2014) asserted that now is the time for ABR "to be used to affect public policy" (p. 417), incorporating participatory approaches within the arts-based genres. Leaders raised to lead alongside and with stakeholders are uniquely positioned to do this.

When I first learned of participatory and arts-based approaches during my doctoral studies in the late 1990s and early 2000s, such approaches were marginalized and rarely emphasized at major educational research conferences. Although I attended an arts-based research workshop led by Barone and Eisner in 2000, Eisner's (2002) writings about the arts and education allotted only a few pages to the topic of arts-based research. "Arts-based research begins with the recognition that the arts, as well as the sciences, can help us understand the world in which we live" (p. 213). However, it was within Eisner's (1998) writings that I first encountered the phrase "multiple ways of knowing" and the assertion that "knowledge is made, not simply discovered" (p. 7), foreshadowing the words of Hall and Tandon (2015): " … knowledge is both created and represented in multiple forms including text, image, numbers, story, music, drama, poetry, ceremony, meditation and more." Support for arts-based research and PAR has grown since the 1990s, and authors such as Patricia Leavy have continued to expand knowledge of these approaches. Leavy (2017a) wrote:

> In arts-based research (ABR), there may be an effort to use an art form to include formerly marginalized perspectives in ways that jar people into thinking differently about commonly accepted stereotypes. In community-based participatory research (CBPR), there may be an effort to develop the project from the outset with people from different groups so that, for example, the perspectives of people across gender, race, class, or sexual orientation, or people who share stigmatized characteristics such as schizophrenia or HIV-positive status, help build the project from the ground up. (p. 28)

Leavy (2009, 2013) began her journey of writing about arts-based research when she published two texts on arts-based research as methods. From there, she exemplified this practice with her development of the *Social Fictions Series*, which exemplifies our suggestion for new ways of knowledge dissemination – storytelling. Leavy (2017b) included both approaches in her recently published research design text. Additionally, Leavy (2017c) edited the recently published *Handbook of Arts-based Research*, which provides rich examples and support for the use of the arts to research and to represent research.

The premise of using stories as research, then, can be found throughout the literature, with implications for a broader presence and use (and acceptance) in political and social justice genres. Fiction can be used as pedagogy (Leavy, 2013) to help participants and stakeholders develop critical thinking skills, raise awareness of issues, and solve problems in context, "all of which can be fostered through the use of fiction as a pedagogical tool" (p. 259). Leavy also wrote of the power of stories to "portray … the complexity of lived experience" (p. 38). How can we understand what it means to teach for the first time and how can we feel

what other teachers have felt and known? Is it sufficient that we have teachers take standardized tests on content knowledge? How might teachers' journeys change, for example, by reading accounts from first-year teachers, such as Leggo's (2012) volume of short stories and poems about life as a teacher and the people in the town where the teacher taught. In writing about "privilege," Leavy (2017a) edited a volume of stories by 20 diverse authors, each of whom provided a story (fiction or nonfiction) that represented their own marginalized perception of the world. By weaving in contextual details of place and person, each author helped the reader connect with the author's viewpoint or perspective, even if the reader had no prior experience with that author's perspective.

Instead of just measuring learning with standardized objective examinations, perhaps we could follow Stuart, Lido, and Morgan's (2011) lead – allow the learners to write biographies that "elucidate their feelings about engagement in learning and teaching" (p. 490). Tett (2010) provided two stories to illustrate community education – one about "family literacy" (p. 52–60) and the other about "educational development and health" (p. 60–65) – in order to illustrate the practice of community adult education in Scotland. Carjuzaa, Ruff, and Henderson (2015) provided a story about the transformation of an administrator education program in Montana from a traditional program to a "culturally responsive project to mitigate oppression" (p. 187).

Narrative research is a sub-genre of qualitative research (Chase, 2005), and narrative inquiry is older than written language (Clandinin & Rosiek, 2007). In narrative research, we tell stories, which includes setting the researcher(s), the participants, and the research problem within a specific context. We saw stories in the cave paintings in Lascaux, France. We told stories to our children and grandchildren. We read stories to help us understand the world. "Narrative inquiry … begins with an ontology of experience" (p. 44). By focusing on lived experience, narratives can provide voice to the marginalized and excluded – critical features of popular education and PAR. Where positivist research focuses on numbers to represent a single behavior or outcome, narratives can provide the entire picture – details, actors, settings, time, and place.

In writing about neighborhood planning in a low-income neighborhood in Charlotte, North Carolina, Bengle and Sorenson (2017) wrote how popular education is "education for liberation" and is focused on "individuals' lived experiences" (p. 320). Although presented in a traditional academic journal, Bengle and Sorenson wove a narrative that included the rich history of the neighborhood and the people who have lived there. Bengle and Sorenson worked in tandem with the Highlander Center, including having 10 residents of the community attend workshops at Highlander. Instead of the researchers focusing on fixing a problem identified by outsiders, they engaged residents and compiled a rich oral history from them. The residents, then, came together in dialogue to resist "power structures and participate" in collective problem-solving.

Ampudia (2016) provided two "experiences" of PAR and popular education in Argentina and documented efforts to resist the neoliberalism present there, and to provide space for new knowledge, created in context. Datta et al. (2015)

described experiences within an indigenous community, using storytelling from multiple viewpoints to illustrate the complexities of the research. One of the authors used "Photovoice" instead of interviews to allow participants to tell their own stories and to include the visual component of photography. The authors concluded that "in this relational PAR study, knowledge ownership was seen as the most significant factor for building trustful relationships with participants and the community ... We learned that the researcher should play the role of interpreter and share research ownership with the community" (p. 592). Indeed, one community member reflected on the PAR experience that it allowed them to create knowledge, to share knowledge, and to write "'our own oppressions and suffering stories, but also put our voice, our needs, and our abilities at its centre'" (p. 592). Stories like Ampudia's (2016) and Datta et al.'s (2015) show the transformative potential of PAR, popular education, and the ability to tell one's story.

These examples and many others are part of a growing body of non-traditional research presentation and context-specific research driven by actors in the context. I must acknowledge that I've presented only a few examples to give the reader a brief glimpse into what could be. I assert, however, that we need many more in order to challenge the traditional view of research and what counts as research if we are to effect social justice and policy changes.

16.10   Participatory Action Research, Engaged Scholarship, and Popular Education for a Sustained Democracy

In this chapter, I've discussed the nature of popular education and action research, briefly provided a history of both, and showed the strength of knowledge created within contexts, by those who identify and wish to change and improve their contexts. Importantly, I've connected both popular education and action research to leadership studies and arts-based research. In realizing how we can create leaders who support and "multiply" (Horton, 1998) their efforts to create social justice in their settings, we honor those who came before. In considering the adoption of arts-based research approaches (for both knowledge creation and knowledge dissemination), we expand possibilities for reaching beyond the academy with our new knowledge. Zipin and Hattam (2009) noted the successes of large-scale PAR projects and they also noted the challenges. I appreciated their emphasis on researcher reflexivity, which is an idea that infuses action research theory from Schön (1983) to Pine (2009) to Mertler (2017) and many others who've written about teacher action research. Zipin and Hattam recalled Bourdieu's writing of *reflexive sociology*, applying it to PAR and cautioning that researchers must take great care to "analyze not just project data, but also project processes and interactions, unpacking the ways in which the researchers themselves" (p. 518) are forcing an agenda, or trying to control a project. I think this is the unique tension that leaders hold in supporting action research and popular education. We must be ever vigilant to support, not direct; to stand beside, not lead; and to encourage participation from all stakeholders.

Notes

1 For the purposes of this chapter, I use these terms interchangeably as representative of various authors' writings.
2 See, for example, the *Handbook of Critical and Indigenous Methodologies*, edited by Denzin, Lincoln, & Smith, 2008. The field of decolonizing knowledge extends from sociological and anthropological studies to studies within fields such as disability studies, where many who are part of the "studied" claim the slogan "Nothing about us without us" (See Charlton, 1998). While the topics of indigenous knowledge, decolonizing knowledge, and disability studies are worthy of connection to the popular education efforts of Fals-Borda, Freire, Horton, and others, I acknowledge that full efforts to include these works are beyond the scope and limits of this chapter. I suggest that for further information on these terms that you begin with the handbook and texts mentioned in this note, from which you can begin your journey to deeper exploration of these issues.
3 I will use the words "expert" and "novice" in this section to refer to those who already have research methods skills and those who are new to the idea of knowledge creation. I do not present these terms in any kind of denigrating way, as I consider research methods skills to be no different from other skills needed to create knowledge, including knowledge of the context and ways of working with diverse people in politically charged environments.

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17

Action Research for Social Justice Advocacy

Mary Brydon-Miller and Bruce Damons

> We would like to dedicate this chapter to the memory of Martha Farrell, from the Society for Participatory Research in Asia, who was killed in 2015 while in Afghanistan working to promote women's empowerment and social justice.

The commitment to social justice is embedded in the very DNA of action research. Our progenitors in the theory and practice of action research demanded that our work focus on creating knowledge through practice with a goal of promoting more democratic and compassionate answers to pressing social issues. Our current challenge lies in adapting these strategies in order to continue to advance the cause of social justice in an increasingly divided, rapidly changing world in which widening income inequality, global environmental threats, and intergroup aggression can create a sense of hopelessness and despair. At the same time, we remain hopeful that together our efforts can achieve positive change. As Freire tells us, "hope is rooted in men's incompletion, from which they move out in constant search – a search which can be carried out only in communion with others" (2000/1970, p. 91). It is in this spirit of communion and the opening up of dialogue that we offer our thoughts and share our experiences on the topic of action research and social justice.

In this chapter, we explore the nature of this relationship between social justice and the history, theory, and practice of action research, drawing upon examples from our own research and from studies from colleagues around the world. We begin by developing a definition of social justice and its relationship to the notion of rebellion and renewing the demand for active engagement by action researchers as radical change agents. Following this, we discuss the history of action research as a strategy for achieving positive social change and link this to the theoretical frameworks most often used to inform our research practice. Illustrating the range of ways in with action research is currently being used to address social justice issues, we briefly examine projects now underway in the areas of providing educational and development opportunities to refugee

communities, supporting the rights of persons with disabilities, and addressing intergroup conflict. We then present a longer case study of action research and social justice based on Damon's dissertation looking at his own community school in South Africa. We close by considering some of the threats currently facing action research as it strives to live up to its social justice legacy and ways in which we might apply the lessons of earlier generations of action researchers to address today's pressing social, economic, environmental, and educational issues.

17.1 Defining Social Justice and the Requirement of Rebellion

John Rawls, in his classic volume *A Theory of Justice*, states that "the primary subject of justice is the basic structure of society, or more exactly, the way in which the major social institutions distribute fundamental rights and duties and determine the division of advantages from social cooperation" (1999/1971, p. 6). He goes on to note that "the justice of a social scheme depends essentially on how fundamental rights and duties are assigned and on the economic opportunities and social conditions in the various sectors of society" (p. 7). In outlining how this is to be achieved, Rawls offers two basic principles, "the first requires equality in the assignment of basic rights and duties, while the second holds that social and economic inequalities – for examples, inequalities of wealth and authority – are just only if they result in compensating benefits for everyone, and in particular for the least advantaged of society" (p. 13). He goes on to add, "it may be expedient but it is not just that some should have less in order that others may prosper" (p. 13). Here, Rawls points to the fundamental injustice of our time and frames the ethical requirement to address injustice through our research and practice.

Camus reflects this same demand to act to challenge inequality in his essay *The Rebel* (1991/1956). Again, in tune with our current times, Camus suggests that "the spirit of rebellion can exist only in a society where a theoretical equality conceals great factual inequalities" (p. 20). In her reflection on Camus' essay, Bartlett (2004) offers further thoughts on how the ideal of social justice might be sought: "at the moment of refusal of oppression the worth and dignity of oneself and of all others is revealed. This is the value born of rebellion" (p. 42). According to Camus, the role of the rebel in society "is not only the slave against the master, but also man against the world of master and slave. Therefore, thanks to rebellion, there is something more in history than the relation between mastery and servitude" (1991/1956, p. 284). Freire put it this way: "in order for the oppressed to be able to wage the struggle for their liberation, they must perceive the reality of oppression not as a closed world from which there is no exit, but as a limiting situation which they can transform" (2000/1970, p. 49). Freire goes on to discuss the role of the educator, or in our case the action researcher, in supporting this process of transformation: "Political action on the side of the oppressed must be pedagogical action in the authentic sense of the word, and, therefore, action *with* the oppressed" (p. 66).

In addition to a clear sense of what constitutes social justice, and our moral obligation to act to achieve it, is the sense of compassion and caring which create

an affective connection with others and sustain us in our efforts toward creating a more just world. Love, Freire says, is another necessary component of dialogue and of the search for social justice.

> The naming of the world, which is an act of creation and re-creation, is not possible if it is not infused with love … Because love is an act of courage, not of fear, love is commitment to others. No matter where the oppressed are found, the act of love is commitment to their cause – the cause of liberation. (p. 89)

We define social justice, then, as an ongoing process, and not an end state, in which principles of equality, democratic participation, fairness, commitment, and love must guide our actions. Grounded in the principle of rebellion, we must strive to find ways of engaging with imposed institutional and societal systems in our efforts to pursue social justice through action research.

17.2 Defining Action Research in the Context of Social Justice

Reflecting a clear focus on social justice, Greenwood and Levin define action research as:

> A form of research that generates knowledge claims for the express purpose of taking action to promote social change and social analysis. But the social change we refer to is not just any kind of change. AR aims to increase the ability of the involved community or organization members to control their own destinies more effectively and to keep improving their capacity to do so. (1998, p. 6)

Other action researchers have defined it as:

- "an emancipatory approach to knowledge creation available to even the most oppressed people of the world" (Maguire, 1993, p. 157).
- "a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview" (Reason & Bradbury, 2001, p. 1).
- "emphasizing collaboration within marginalized or oppressed communities, participatory action research works to address the underlying causes of inequality while at the same time focusing on finding solutions to specific community concerns" (Williams & Brydon-Miller, 2004, p. 245).

While there are many different approaches to action research, they all focus in one way or another on making the research process more open and participative and on using research to achieve positive change. In the article "Why Action Research?" (Brydon-Miller, Greenwood, & Maguire, 2003), in which members of the editorial board of the then new journal *Action Research* responded to the

question raised in the title, one clear point of consensus among the contributors was the idea that, "action research rejects the notion of an objective, value-free approach to knowledge generation in favor of an explicitly political, socially engaged and democratic practice" (p. 13). In that same article, Ian Hughes summed up what many of the contributors felt when he observed,

> I choose action research because I have a long-standing commitment to developing more effective strategies and methods to promote social justice ... I choose action research because I believe in old-fashioned virtues like compassion and truth. I know this sounds corny, but it is real. (p. 15)

In discussing educational action research in particular, Noffke (2009) describes the personal, professional, and political dimensions that educators occupy in doing this work. Personal growth, professional development, and political engagement are all critical aspects of educational action research. Carr and Kemmis (1986) emphasize the importance of this political aspect in distinguishing three types of AR: technical, practical, and emancipatory. Citing Carr and Kemmis, Zuber-Skerritt (1996) outlines the main goals of each of these types of action research:

- Technical action research "aims to improve effectiveness of educational or managerial practice" (p. 4).
- Practical action research "aims at the practitioners' understanding and professional development" (p. 4).
- Emancipatory action research "aims at changing the system itself or those conditions which impede desired improvement in the system/organization" (p. 5).

The goals of these three approaches to educational action research can and should be integrated in any educational action research project – i.e. we work to improve practice, provide professional development, and address larger structural issues at the same time. However, it is often the case that projects stop short of the final emancipatory moment that we feel most fully engages the aim of addressing issues of social justice.

17.3 Action Research as a Tool of Radical Transformation: History and Current Contexts

From its earliest days, action research has striven to address these issues of social and economic inequality and political disenfranchisement. In his essay "Action Research and Minority Problems," Kurt Lewin (1946) wrote about the use of this approach in addressing issues of discrimination toward minority groups.

> The research needed for social practice can best be characterized as research for social management or social engineering. It is a type of action-research, a comparative research on the conditions and effects of various forms of social action, and research leading to social action. Research that produces nothing but books will not suffice (p. 34).

While the terms "social management" and "social engineering" may no longer resonate, the notion that research must lead to social action is still very much at the heart of action research today. Lewin believed that an important aspect of addressing these issues lay in the study of group dynamics and in finding ways of ensuring that everyone comes to the table with the ability and willingness to participate in discussions of intergroup relations as equals by establishing the self-esteem of all participants. But in a prescient observation, he goes on to note, "that means every effort should be made to lower the inflated self-esteem of the 100 percenters" (p. 45). Lewin closes this essay by saying, "this job demands from the social scientists the utmost of courage … It needs the best of what the best among us can give, and the help of everybody" (p. 46).

While Lewin, along with researchers from the Tavistock Institute, the Work Research Institute (see Coghlan and Brydon-Miller, 2014 for descriptions of these and other action research organizations and movements), and others were developing a Northern Tradition of action research, focused largely on organizational settings and working life issues, developments in the global South were contributing to the development of participatory research methods that sought to address issues of social justice within the context of oppressed and marginalized communities.

A key contributor to this work is Paulo Freire, whose book *Pedagogy of the Oppressed* (2000/1970) continues to inspire new generations of scholars seeking ways to engage issues of social justice through grassroots-level activism and the collaborative investigation of critical issues facing communities. In an extensive body of work, Freire (see, for example, 1973, 1985, 1992; Horton & Freire, 1990) critiques the concept of banking education which reinforces systems of oppression and offers in its stead the notion of problem-posing education which "bases itself on creativity and stimulates true reflection and action upon reality, thereby responding to the vocation of persons as beings who are authentic only when engaged in inquiry and creative transformation" (2000, p. 84). Freire's notion of conscientization, or critical consciousness, and his methods for engaging in problem-posing education in order to achieve it are at the heart of much of participatory action research.

Working at the same time as Freire, Orlando Fals Borda (2001, Fals Borda & Rahman, 1991) used the term "participatory action research" to describe his approach to working with peasant communities in his native Colombia. In a speech given to the Southern Sociology Conference in Atlanta, Georgia, in 1995, he articulated the links he envisioned between this approach to research and the quest for social justice.

> If this type of committed, participatory research really helps the poor peoples (which are the majorities of the world) to exercise their human and social rights; if it unveils the conditions of their oppression and exploitation; if it assists in overcoming the constraints of savage capitalism, violence, militarism, and ecological destruction; if it endeavors to understand, tolerate and respect different genres, cultures and races, and to heed the voice of Others, then sociology and the social sciences can be expected to survive well and meaningfully the tensions of modernity (para. 23).

That we are continuing to encounter these same constraints of "savage capital-ism, violence, and ecological destruction" and the same efforts to marginalize such approaches to participatory research in sociology and other social sciences disciplines over 20 years after Fals Borda gave this hopeful assessment, suggests that we still have a long way to go in achieving the kind of impact he envisioned.

Work in Asia, and in particular the work of Rajesh Tandon (2005) and his col-leagues at the Society for Participatory Research in Asia (PRIA) and that of Mohammed Anisur Rahman (1993) and others at the Research Initiatives, Bangladesh (RIB), provide long-standing examples of rigorous AR being con-ducted outside of formal academic settings, which has had profound impacts on local communities and made important contributions to our understanding of strategies for achieving social change. A key concept promoted by RIB is the notion of "Gonogobeshona," a Bengali word meaning "people's research." In this process,

> people affected by adverse social conditions use their own insights, acquire information from existing public records, and generate new knowledge by means of analysis and systemization in order to arrive at creative solutions to their problems without depending exclusively on external interventions. (Begum, 2014, p. 385)

Africa, with its colonial legacy and strong neoliberal influence, has had to con-tend with complex challenges which require an ongoing process grounded in our definition of social justice. In the early 1970s, Freire made his first trip to Africa, which he describes as "a reencounter with myself" (1985, p. 112). Freire did extensive work in Guinea-Bissau and Tanzania in the areas of adult literacy and popular education. But participatory research projects were also underway in Senegal, Tanzania, Zimbabwe, Benin (Hall, 2001; Koudokpon, 1992; Rahman, 1993; Swantz, 2008), and other parts of Africa in the areas of agricultural devel-opment, women's empowerment, and knowledge mobilization. The move to a more decolonized approach and the equitable recognition of indigenous episte-mologies and methodologies is continuing to grow in South Africa (Olivier, Wood, & de Lange, 2009), Namibia (Chadwick, 2017), Kenya (Onyango-Ouma, Lang'o, & Jensen, 2009), and across the African continent. At the core of these approaches is what South Africans term "Ubuntu" – tolerance, humanity, and respect (Mabovula, 2011).

Australia offers another aspect of the lineage of action research as outlined by Grundy (1997), who described what she calls the first wave of educational action research starting in the mid-1970s. Important contributions to this discussion of action research and social justice from Australia grow out of the work on eman-cipatory action research noted earlier (Zuber-Skerritt, 1996), AR and Aboriginal communities (Stringer, 2015), and participatory evaluation (Wadsworth, 2010).

In the United States, a key figure in this narrative, although he didn't use the term action research, was John Dewey. Drawing in part upon his interactions with prominent social activist Jane Addams and his visits to Hull House in Chicago, Dewey explored the critical relationships between democracy, educa-tion, and social justice (1916). Another important lineage in the story of action

research in the United States, and in particular in the articulation of the critical role of popular education as a strategy for achieving positive change, is that of the Highlander Research and Education Center (Gaventa, 1993; Horton; 1993; Merrifield, 1993). In the mid-1920s, Myles Horton, like Dewey, was inspired by conversations with Jane Addams and also by his work with Reinhold Niebuhr at the Union Theological Seminary. Horton then spent a year in Denmark studying the Danish Folk School movement before returning to the United States to establish the Highlander Folk School together with Don West (Glen, 1988; Horton, Kohl, & Kohl, 1990). Founded in 1932, the Highlander Research and Education Center, as it is now called, continues to train new generations of activists and community organizers and to contribute to the generation of knowledge focused on critical local and global issues (Brydon-Miller et al., 2009; Schneider, 2014).

An even earlier example of popular education to promote social justice was the Antigonish Movement at St. Francis Xavier University in Nova Scotia, Canada, through its Extension Department established in 1928. The core of this movement involved the creation of local study clubs designed to bring local people together to understand and respond to shared issues of concern (Irving, 2014). This work continues today through the Coady International Institute, named after the first director of the Extension Department at St. Francis Xavier, the Rev. Dr. Moses Coady, with the goals of developing leadership, building knowledge, and creating North/South partnerships to promote community development and accountable democracies.

In the final chapter of the book *Action and Knowledge: Breaking the Monopoly with Participatory Action-Research* (Fals-Borda & Rahman, 1991), Fals Borda uses the notion of convergences to begin to examine the interconnections, inspirations, and aspirations shared by multiple contributors to the founding and promotion of action research for social justice. Just in our own brief review of the field here, we note the connections between John Dewey and Jane Addams, Jane Addams and Myles Horton, and Paulo Freire and Myles Horton, which led to the book *We Make the Road by Walking* (1990). Further such connections include the opportunity of John Gaventa (2014) to hear Orlando Fals Borda speak and from him to take ideas for his collaborations with the Highlander Research and Education Center and later into his work as Director of the Coady International Institute, and our own opportunities to engage in these dialogues – Brydon-Miller's of working with Freire and Horton as a graduate student, and later when working on the volume *Voices of Change: Participatory Research in the United States and Canada* (Park, Brydon-Miller, Hall, & Jackson, 1993) – to get to know John Gaventa, Juliet Merrifield, and Billy Horton, all of whom were connected to Highlander. Further, and most recently, there has been the opportunity for Brydon-Miller to serve as outside examiner on Damon's dissertation, which introduced her to his incredible work in community schools in South Africa, and now to our collaboration here. Damon has a different trajectory to academia and AR in particular, which he highlights later in the chapter. Our convergence, however, extends to Damon's link with Lesley Wood and Ortrun Zuber-Skerritt. It was through these colleagues that Damon was invited to present at the ALARA (Action Learning, Action Research Association) Conference in South Africa in 2015, including attending a

presentation by Brydon-Miller on ethics and AR. These relationships and networks inspire, challenge, and sustain us all in our efforts to continue to work for social justice.

17.4 Theoretical Frameworks

The theoretical frameworks most often associated with action research (AR) underscore the commitment to social justice evident in our definition and the history of AR outlined above. Critical theory and the work of the scholars who were part of the Frankfurt School provide an important starting point for many action researchers who look to the critique of positivism, open engagement of the political nature of all research, and the focus on praxis and engagement with discourse as core aspects of their own theoretical stance (Kemmis, 2001; also see Held, 1980, for a helpful introduction to critical theory).

Also grounded in Marxist theory and the work of the Frankfurt School, but drawing upon multiple additional influences including the work of Sartre, Fanon, and Guevara, along with W.E.B. Du Bois, Antonio Gramsci, and Lev Vygotsky, critical pedagogy focuses on the idea that education is always and above all a political act and insists that educators must actively engage in challenging systems of oppression (Freire, 2000; Kincheloe, 2005).

Feminist theory and its sometimes troubled relationship to AR (Maguire, 2001; Maguire, Brydon-Miller, & McIntyre, 2004) has led to the flourishing of feminist participatory action research (Reid & Frisby, 2008). In first articulating the idea of feminist participatory research, Maguire observed, "by combining feminist research's critique of androcentrism with participatory research's critique of positivism, a feminist participatory research provides a powerful approach to knowledge creation for social and personal transformation (1987, p. 209).

Similarly, post-colonial theory (Loomba, 1998; Spivak, 1988), with its focus on challenging systems of oppression – in this case, systems of oppression grounded in the legacy of colonialism – serves as a useful framework for informing AR, especially within indigenous communities and in the contexts of the global South.

Critical race theory, too, provides an important framework for action researchers working on issues related to racial inequality to sharpen their understanding of the ways in which racism works to normalize and sustain systems of inequality (Brennan & Noffke, 2009; Ladson-Billings, 1999). An important recent contribution to the integration of critical race theory and AR comes out of the work of Houh and Kalsem (2014, 2015), who are working to articulate the field of legal participatory action research.

This summary of the relationships between AR and theories that help to shape our critique of various forms of oppression is necessarily brief but does, we hope, suggest avenues for further reading and engagement. At the same time, this work – in particular, the work of Maguire on feminist participatory action research and Janes (2016) on post-colonial theory in the context of community-based participatory research – presents challenges to the sometimes uncritical claims of action researchers regarding our commitment to social justice, calling

upon us to reflect more deeply on issues of gender, race, ethnicity, power, and agency and to demand that our research engages with issues of oppression on more systemic levels (Burns, 2007).

17.5   Increasing Opportunities to Address Issues of Social Justice in the Action Research Process

The AR process centers on developing and sustaining strong community partnerships. The progression of the phases of the research include: (i) forming relationships; (ii) assessing community strengths and assets; (iii) identifying priorities, goals, and research questions; (iv) seeking funding and resources; (v) identifying sources of data; (vi) gathering data; (vii) analyzing data; (viii) taking action; (viiii) disseminating knowledge; and (x) beginning a new cycle or moving on. Each of these phases of the process carries with it opportunities to contribute to the social justice goals of the project or, alternatively, to undermine the social justice agenda of the overall project by failing to honor the democratic, participatory nature of AR. In forming relationships, for example, researchers often approach community members only after specific research questions have been established and funding secured with a goal of getting the community "on board" with a project that may or may not address issues the members of the community themselves find compelling. Social justice is served when the research process begins within the community itself, focusing on ensuring that all voices and ways of understanding the issues are included, with particular attention to those Rawls refers to as "the least advantaged of society." Oftentimes, this means intentionally seeking out members of minority communities, individuals with disabilities, women, and older and younger persons whose opinions may not be regularly sought out in establishing community initiatives. This also means creating settings and research processes that enable meaningful participation by all parties. Traditional research methods often favor those who are the most vocal, most articulate, or most powerful members of communities, but social justice demands that everyone has the chance to contribute to processes of change. Seeking funding is an aspect of the research process which is often overlooked in discussions of research ethics, but social justice cannot be served if the research process and outcomes are influenced not by members of the community itself, but by those who pay for it, and clear disclosure of financial aspects of the research process is an important means of maintaining transparency and accountability. Gathering and analyzing data are also important points at which social justice concerns can be strengthened by engaging community members as active partners in conducting the research process and making meaning of the data that are generated through collaborative investigation and dialogue. Too often in more traditional research processes, even knowledge that arises from within communities is spirited away at this point in the process and sense-making is handed over to computer systems and arcane forms of data analysis in order to ensure what is regarded within the academy as rigor and validity. But AR in the interest of promoting greater social justice must remain under the control of people within the community. It is also vital to consider issues of ownership and control over how

the data are managed and how the knowledge that is generated is used to create positive social change. In many instances, these aspects of the research process are in fact undermined by traditional research practices which privilege university researchers' interests and the demands of academic oversight bodies over the claims of community partners whose knowledge and experiences are being investigated. Finally, going back to the central importance of these community partnerships, negotiating ongoing research initiatives that continue to contribute to positive change in communities or acknowledging and planning for the end of these partnerships in such a way that all parties feel their interests and feelings are respected is an important last stage of the process.

17.6 Working for Social Justice across the Multiple Roles of the Action Researcher

In a recent publication, Brydon-Miller and her colleague Alfredo Ortiz Aragón (Brydon-Miller & Ortiz Aragón, 2018) discuss the multiple roles played by action researchers across the lifespan of our partnerships and projects. These roles can be broken down into four realms: Advocacy, Relaters, Dynamic Sense Makers, and Emergent Designers. These arenas of relationship and action, taken together with the more traditional roles associated with conducting research, each carry with them opportunities to contribute to advancing the cause of social justice. The realm of Advocacy is probably the most obvious of these, with the expectation that we will call for greater levels of participation, intervene on behalf of community members to address local issues, and support efforts to develop political actions and policies emerging from our work together. In the realm of Relaters, the focus is on more personal interactions to build trust and confidence, to bring groups of people together across areas of difference and disagreement, and to conduct the vital everyday acts of caring and communicating that so often go overlooked. The realm of Dynamic Sense Makers recognizes that knowledge generation happens at each stage of the AR process in unique and emergent ways and that our abilities to contribute to social justice are dependent on our ability to capture and work together to make sense and make use of this learning. Finally, it is in the realm of Emergent Designers that the action component of AR takes shape suggesting avenues for innovation and intervention and launching a new cycle of AR to investigate the impact of our efforts to promote greater social justice.

17.7 Action Research for Social Justice: Examples of Practice

17.7.1 Participatory Action Research in Rohingya Refugee Communities in Bangladesh

Current refugee crises around the world challenge us to find ways to address both the immediate needs of hundreds of thousands of people from around the world seeking safety for themselves and their families, and the root causes of the

migration of these people from their homes. Research Initiatives, Bangladesh (RIB), one of the organizations described earlier, has worked in the Rohingya refugee camps in Bangladesh to support the development of educational opportunities for young children and to set up these programs to build more participatory and democratic processes of local decision-making and control (Guhathakurta, 2017). These Kajoli Centers, staffed by women in the camps and held within their homes, are of value in and of themselves by providing early childhood education to children in the camps. But at the same time, these programs bring local people together and create spaces within which "refugees find their own agency and identify confidence-building processes with which they can take the necessary action to combat the roots of the violence they face in their daily lives" (p. 661). Guhathakurta provides a detailed account of the roles and responsibilities of the various national and local actors in addressing this crisis, but also acknowledges the importance of building capacity within these communities through participatory action research as a key strategy for addressing both immediate and long-term issues arising from this situation.

17.7.2   Disability and Community: Dis/Engagement, Dis/Enfranchisement, Dis/Parity, and Dissent (D4D)

One project currently underway in the United Kingdom brings together community- and university-based activists, artists, and researchers to address issues of disability and community engagement. This project, funded by the Arts and Humanities Research Council, includes work in the areas of cultural animation, robotics, transcription poetry, theater, science fiction, and video gaming to engage in public dialogues around questions of inclusion and access and activism. One example of the project's work is a recent interactive multi-media event organized by D4D team members titled, "Brave, Poor (and Invisible): The Gatekeepers of Past and Future Cities," which explored histories of people with disabilities and raised questions regarding whether we are facing a utopian or dystopian future in terms of the impacts of new technologies. In particular, the event challenged participants to consider how the choices we make regarding technology will impact the role of persons with disabilities as gatekeepers of their own futures. This coming together of researcher-activists provides a vibrant, creative space for the kind of action and reflection that are at the heart of action research and serves as a model for how collaboration across multiple strands of difference – disabled and non-disabled, community- and university-based, arts, humanities, and engineering – can spark new insights and new approaches to addressing key issues related to disability and social justice.

17.7.3   Conflict Transformation in Spaces of Turmoil

Victor Friedman and his colleagues, both Jewish and Arab/Palestinian, have a long-standing commitment to work to bridge the many divisions between these communities. Drawing upon action science and the work of Kurt Lewin and Chris Argyris, these projects seek to bring participants from these divided communities together in ways that acknowledge differences in power and privilege

and lead to authentic dialogue with the goal of seeking strategies for transforming conflictual relationships. Whether it's bringing together Jewish and Arab Israeli nursing students to establish more open discussions around issues of difference (Arieli & Friedman, 2013) or engaging with community partners to try to create meaningful collaborations (Arieli, Friedman, & Agbaria, 2009), Friedman and his colleagues provide honest discussions of the challenges they encounter in doing this work, often offering self-critical assessments of their own actions. The ability to learn – and to help others to learn – through our failures is vital in the effort to continue to pursue the goal of social justice with humility and a commitment to authentic dialogue and action.

There are multiple additional areas in which action research is proving to be an effective strategy for engaging communities in addressing issues related to social justice. Research in indigenous communities, for example, offers important examples of the ways in which local knowledge, language, and culture are important assets communities can draw upon in addressing pressing issues such as suicide prevention (Kral et al., 2014); language education (Brydon-Miller, Prudente, & Aguja, 2017), and the challenges of addressing global climate change (Lemelin et al., 2013). Health disparities (Flicker et al., 2017), environmental justice and sustainability (Egmose, 2015), and gender inequality (Aziz, Shams, & Khan, 2011) are also important arenas in which action research has been used to address social justice issues. We turn now to an extended discussion of action research as a tool for addressing educational inequality in South Africa.

17.8   Educational Inequality: The South African Context – Bruce Damon's Story

17.8.1   Background

Schools located in South Africa's rural, urban, and peri-urban township communities are facing the same myriad of complex challenges that they faced under apartheid, which directly impacts the quality of education, in particular of the Black South African child. These challenges are caused by large-scale unemployment and the accompanying socio-economic challenges among which are hunger, disease, crime, and both physical and substance abuse resulting in the loss of human dignity. I, Bruce, began my career as a teacher and trade union leader in South Africa, during the period 1990–2015, working in these communities. My first engagement with the AR community in South Africa was when I was appointed as Principal of a school in a community faced with challenging socio-economic conditions. The stance I took, through the school leadership position I occupied, was that the school should serve as a beacon of hope for the community it serves, especially in impoverished communities. It was during this time as Principal that I was formally introduced to AR and South African action researchers. These numerous engagement projects, with various universities and organizations, primarily focused on the technical and practical goals of AR, as discussed earlier in the chapter. After numerous studies being done *on* the school,

I decided to pursue postgraduate studies using AR as the methodology of enquiry. Both my Master's (Damons, 2012) and my PhD (Damons, 2017) dissertations set out how to use AR to address social justice issues while pursuing an empirical study. It was during these studies that I experienced the supportive and caring nature of the AR community. I now head an engagement center at the Nelson Mandela University, Centre for the Community School (CCS). Our work in the more than 70% of schools located in some of the harshest socio-economic conditions in the country uses various genres of AR as our method of engagement with the various stakeholders in these schools to deal with the complex challenges these schools face.

> At a time when there is so much turmoil, not only in our country, but also globally, we should be constantly looking at ways that can improve the lives of marginalised communities. These communities are largely ignored and are not provided with a space where they can feel valued and confident that they can make a meaningful contribution to the complex challenges and circumstances that confront them on a daily basis. (Damons, 2017, p. 205)

This quotation emanates from the conclusion of our study conducted in our school, which is located in one of these marginalized communities, in South Africa, in 2016. Our study illustrates how, through the use of a genre of AR, participatory action learning and action research (PALAR), as a methodology, the notion of social justice which advocates equality, democratic participation, fairness, commitment, love, and a degree of rebellion is advanced.

17.8.2 Linking the 7Cs of PALAR to the Four Realms of AR in the Journey from Technical and Personal to Emancipatory AR for Social Justice

The school has a rich history of community volunteerism (Damons & Abrahams, 2009), and the study presented an opportunity for us as stakeholders in the school to reflect and improve on the practice of community volunteerism. In this overview of the study, I reflect how PALAR enabled participants in the study to make a meaningful theoretical and methodological contribution toward school improvement, within this specific context. In addition, as participants we were able to demonstrate how AR as a methodology allows a community to engage in and contribute to addressing some of these social justice issues, which influences the quality of education their children receive. I then conclude by reflecting, through what Zuber-Skerritt (2011) terms the 7Cs of AR: communication; collaboration; commitment; coaching; critical attitude and reflection on the action; competence; and character building, by linking these to the four realms of AR as posited by Brydon-Miller and Ortiz Aragón (2018) – Advocacy, Relaters, Dynamic Sense Makers, and Emergent Designers. This concluding reflection is important as it highlights a journey from what initially started as a technical and practical approach to the emancipation of myself and fellow participants.

17.8.3 The Study

The study was conducted with 15 community volunteers and one foreign volunteer. The participants (which included myself) organized ourselves into an action learning set (ALS) (Zuber-Skerritt & Teare, 2013) and explored the following question: *How can the community school recruit, support, and sustain the community volunteer?*

In order to understand the primary research question, we, the participants, wanted to:

- collaboratively understand what motivated the community volunteer to be involved in a school;
- collaborate in a humanizing way to develop an understanding of what we perceived as the key roles and responsibilities of the community volunteer in the school and what support they needed to improve on present practice;
- explore whether the acts of volunteerism were perceived to have made an impact on the efficiency and effectiveness of the school;
- develop a contextual process model for sustaining volunteerism that could be of use to other schools operating within similar contexts that desired to involve volunteers.

The iterative engagement during the study was characterized by planning, learning, reflection, and action, underpinned by the values of love, respect, care, loyalty, and trust. These values were identified at the end of the study as being critical for the successful completion of the study.

The research design we developed was a cyclical process which reflected the sometimes messy process of the engagement over a period of two years at the school, asking first what motivates community volunteers to do this work, then asking these volunteers how they perceive of their roles and tasks at the school, and finally considering how this knowledge might be used to develop a process model for recruiting, supporting, and sustaining volunteer work within a community school. It was from this engagement that we emerged with the process model shown in Figure 17.1 to respond to the research questions raised in the study. The process model, besides addressing the research questions, serves as a metaphorical lens to highlight some of the social justice challenges confronting our communities. The model then advances how, through agency, voice, and creating a sense of community, the school could become a center which enables the community to engage with some of these multiple complex challenges and at the same time serve the educational interest of their children.

In communities with little or no support to deal with their daily challenges, participants argued that schools should be beacons of hope, not only for the children from the community but for the community itself. The beacon of hope is achieved if the community plays an active role in the school and the school plays an active role in the community. The reciprocal relationship can only occur if it is underscored by strong values which are honored by both the school and the community volunteers involved in the school. The values identified in the study to cement this reciprocity were: love, care, respect, loyalty, and trust. These were the same values identified as important during our engagement process in the study.
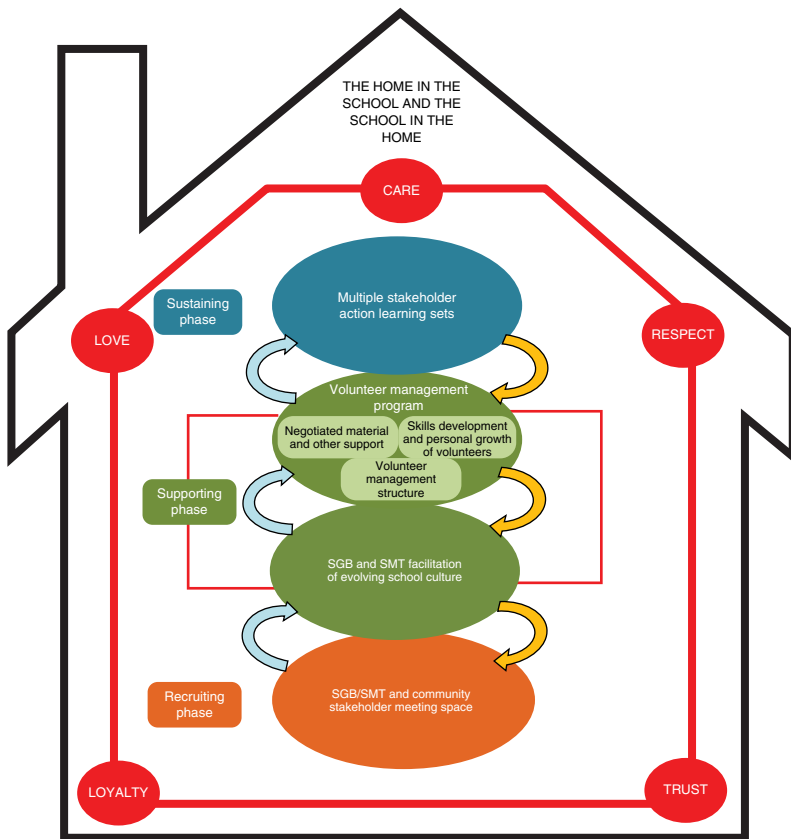
Figure 17.1 The process model for recruiting, supporting, and sustaining the community volunteer in a school.

Participants further felt that it was important for the school to listen to the community and allow the community to actively contribute to the understanding of what a functional school means for their particular context. The process model, therefore, argues for the opening of a dialogical and dialectical space to engage with multiple stakeholders from the community during the recruiting phase.

Participants advanced that the following issues should be engaged with during the recruiting phase:

- Re-imagining the school, as a beacon of hope, to be responsive to the contextual realities of the community and their children. This re-imagining had to be aligned with the legislative requirements expected of the school.
- The role the community volunteer should play in supporting the re-imagined school.
- Criteria to recruit community volunteers.
- Understanding of the reciprocal relationship between the school and community volunteer.

The need for recognition of the voice of the community is something which participants regarded as critical in recognizing the agency communities can bring to school. This is particularly important because under Apartheid, Black communities had been deprived of the opportunity to articulate the aspirations of their children and the nation, and this situation is still prevalent today. Participants also felt that authentic engagement with the community would allow schools to understand the impact of poverty and other social challenges facing the communities. After the dialogue with the multiple stakeholders, during the recruitment phase, participants then recognized the need to give attention to the existing school culture in order to successfully integrate the community into the school.

Schools, like society, have hierarchical structures, and participants recognized that schools sometimes view indigent communities from this perch. If schools are to successfully integrate community volunteers, they will have to transform to humanizing spaces willing to embrace all persons wanting to contribute to the functionality of the school. It is during this humanizing engagement that systems will be co-constructed to support the work of the volunteer in the school. The systems should have processes in place that will not only take care of the basic needs of the volunteer, but will further actively facilitate skills development and personal growth.

Finally, in order to sustain the community volunteer program, the participants argue for the creation of multiple dialogical spaces of key stakeholders in the school. These spaces are important to address any challenges and needs that may emerge during the program. The participants argued that the values used in the action learning set for the study could be the same values used in these dialogical spaces.

Although the volunteer program has been active for more than 15 years at the school, participants felt that for the first time their voices were actually heard through the study and more importantly their agency in the school was recognized. Besides the emergence of voice and recognition of agency, the study further allowed for influencing and improvement of practice around volunteerism in the school. In addition to influencing practice, the study makes both theoretical and methodological contributions to the national and international debates around school improvement.

Theoretically, the study makes a significant contribution to the debates around school and community engagement. The hypothesis is that if communities are given a more central role in the debate around what an effective school is, they will be more eager to contribute in supporting the school to become a beacon of hope for the community. The process model suggests how this integration of community and school can occur. It also provides insights into other school improvement models on how to engage with community members to support their programs. The methodological contribution not only presents an organic ownership of AR within this specific context, but further suggests how a process can unfold to invite the voices of communities into the school space.

In conclusion, the study illustrated how using AR as a methodology allowed for the voices of those who are normally regarded as marginalized to be heard. All voices in the action learning set were valued and listened to, and all participants

voluntarily took part in the study because they wanted to contribute to the improvement of their own practice. The participants were committed to the study, even though the process was messy at times. The values which emerged during the study were the major contributing factors to this commitment. Some acts of "rebellion" included participants' demands that their names be used in the

Table 17.1 Mapping the lessons of an emerging action researcher.

Four realms	7Cs	Our emancipation from lessons in our study
Advocacy	Communication; critical attitude and character building	• Openly and honestly articulating the purpose of the engagement and making sure that all needs of all the participants will be accommodated through the engagement. • As a principal in a school, you have to be prepared to give up the privilege that comes with the title if you want to gain the trust of the community, including recognizing your power, even as an activist practitioner researcher. • Recognizing and articulating that the challenges faced by the school go beyond the technical and personal. We cannot deal with the issues facing our school if we do not engage with the macro-issues confronting our community and country. • Developing a value system which will guide our interactions.
Relaters	Commitment	• Building relationships during the engagement is critical if we are to value all voices. We have to build in enough time to build relationships through getting to know who we truly are, which includes recognizing our privileges and oppression in the process of collaboration. Furthermore we must be willing to change as the process of getting to know one another evolves and the complexity of our work emerges.
Dynamic Sense Makers	Collaboration; coaching; competence;	• Recognizing the importance of moving at the pace that would accommodate all participants. • Pausing the engagement to capacitate ourselves with various tools which would enhance our project. • Recognizing that we all have knowledge, including use of indigenous knowledge systems which would add value to our project.
Emergent Designers	Reflection on the action	• Acknowledging that action research is messy. The process must be guided by what emerges during the process. • Ensuring the validation of all emerging data by all participants and building the validation process into the various cycles of the project. • Ensuring that the participants own the emerging knowledge, even after the project has being completed and that all participants have the opportunity to share the findings on multiple platforms.

study and my acknowledgement that the study is "our" study, eliciting critique from some circles in the academy around who the knowledge actually belongs to. I further recognized that I had to go against a number of the conventional academic and job norms in order to complete the study, but I wanted to remain true to the commitment shown by my fellow participants. In the end, the voices of the participants were not only heard, but they actively participated in tackling social justice issues that impacted on their daily lives and on the education of their children. Participants from the study are now supporting me in sharing the module in other communities, and they accompany me to conferences and other fora to present the findings of the study.

17.8.4 The Realms, the 7Cs, and the Emancipatory Lessons of the Emerging Action Researcher Linked to Social Justice

The one overarching reflection I have taken away from our study is that if one stays true to the principles and philosophies of AR, one undergoes a personal transformation. Illustrated in Table 17.1 is what I view as this personal transformation, which I argue is linked to the emancipation and social justice we experienced during the study and which I link and connect through the four Realms and 7Cs.

17.9 Conclusion

Writing this chapter has proven to be both a blessing and a curse. It served as a curse because the more we wrote, the more we realized that we could not do justice to the full scope of action research focused on bringing about positive social change. To all of those whose work has not been mentioned here, we offer our heartfelt apologies for the oversight. But, at the same time, this work has been a blessing. In a time of deep discouragement when it is easy to feel overwhelmed by the news of the day and the needs of so many, we are reminded both of our individual obligations to continue to be engaged in this important work, and of the many people who are working alongside us in this effort.

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18

Innovations in the Dissemination of Action Research

Rhetoric, Media, and Communication

Danah Henriksen and Punya Mishra

> *The difference between theory and practice is, in theory, somewhat smaller than in practice.*
>
> Frank Westphal

> *Knowledge is not simply another commodity. On the contrary. Knowledge is never used up. It increases by diffusion and grows by dispersion.*
>
> Daniel J. Boorstin

18.1   Introduction

"If a tree falls in a forest and no one is around to hear it, does it make a sound?" is a thought experiment often raised by philosophers interested in the distinction between observation and perception. A similar question can be asked about educational research. "If a piece of research is published in a journal and no practitioner reads it, does it have an impact?"

It is often taken as a given that research has (or at least, should have) impact on practice. But, the question remains, what does impact actually mean? The standard way of measuring the impact of a piece of research – by counting the number of times the piece (usually a journal article) is cited by others – is known as citation analysis. The idea here is that more important research will be cited more often than research that is less important. Citation analysis is typically used by governments, funding agencies, and university tenure and promotion committees to evaluate the productivity and quality of a piece of research – and, via that measure, to judge a researcher's work (Klavans & Boyack, 2017).

Matters, however, are not that straightforward; consider what we know about overall patterns of citations. Meho (2007) reported that some 90% of papers that have been published in academic journals are *never* cited. Further, he argued that as many as 50% of papers are not read by anyone other than the authors, referees, and journal editors of a piece. If this is indeed the case, even given possible

challenges to these specific numbers, this speaks to a broader pattern that raises important questions about the value and meaning of much research that is conducted today (Guldberg, 2017).

This become more complicated in practitioner-oriented fields like education, where the gap between research and practice is a substantive concern (Wilson, 2017). This makes the dissemination of research (to other researchers, but more importantly to other practitioners) all the more important. There are systemic reasons why this crucial dissemination and impact of research on practice does not always happen, and the research–practice gap remains strong.

In this chapter, we begin by framing the issue of dissemination of action research by considering what the educational research–practice gap means and why it is important, along with related issues of rhetoric, transferability, and dissemination. We assert it is vital that more action research be disseminated to the field. This allows innovations, lessons learned, and empirical research findings to move beyond a local context, to benefit other practitioners, scholars, and the field overall. There are multiple ways to approach this dissemination and various considerations for action researchers. We review traditional scholarly and practitioner modalities of publishing and presenting, as well as suggesting new forms or approaches of dissemination through new digital and networking media. Finally, we conclude on a discussion of strategy and forward-looking considerations for dissemination and implications for action researchers seeking to make their mark on the field.

18.2   Scholars, Practitioners, and the Spaces Between

Donald Schön (1995), in his influential work on the epistemology of practice, spoke of the dilemma of *rigor* vs. *relevance.* He wrote:

> In the varied topography of professional practice, there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the use of research-based theory and technique. In the swampy lowlands, problems are messy and confusing and incapable of technical solution. The irony of this situation is that the problems of the high ground tend to be relatively unimportant to individuals or society at large, however great their technical interest may be, while in the swamp lie the problems of greatest human concern. The practitioner is confronted with a choice. Shall he remain on the high ground where he can solve relatively unimportant problems according to his standards of rigor, or shall he descend to the swamp of important problems where he cannot be rigorous in any way he knows how to describe (p. 28).

This dilemma emerges primarily in what is typically called the gap between research/theory and practice – a gap that may be largely attributed to the different priorities of scholars and practitioners.

Scholars are interested in extending the knowledge base of the field, often focusing on sometimes minute distinctions in research designs or outcomes, or

between theories and frameworks (Ladwig, 2016). For instance, a certain difference of statistical significance might be of importance to researchers, yet relatively unimportant in terms of applied impact. Researchers seek to be well-respected within the research community, where theory and rigor garner greater attention than impact on practice (evidence of this can often be seen in the conclusions section of most research articles, with the mandatory "we need more research" paragraph of implications). The language used by researchers in their writing – driven by a need for precision in terms, or the requisite technical language in a discipline – often comes across as jargon, and becomes a barrier to practitioners for applying or understanding the meaning and relevance of the work (Zhu, 2004). The pressures of immediate publication for reasons of tenure and promotion can hinder long-term research studies built in partnership with practitioners. The research and peer-review publication process is often long and prevents practitioners receiving the information they need in a timely manner (Hartley, 2008). All of this means that published research is often not relevant for practitioners or even readily available to them when they need it.

At the heart of this scholarly research worldview is the idea of "technical rationality" (Schön, 1995) – the idea that professional practice is seen as the application of systematic knowledge to instrumental problems. As Schön (1995) continues, the emergence of technical rationality in universities, which privileged certain kinds of "pure" knowledge over others, has led to the research–practice gap. Technical rationality suggests a purely instrumental view of practice, where practice consists of adjusting technical means to ends that are *clear, fixed*, and *internally consistent* – descriptors which may hold in controlled experiments, but not in laboratories of practice. He states:

> Technical rationality fostered a separation between research and practice. Research of the kind that was viewed as proper to the "higher schools" – rigorously controlled experimentation, statistical analysis of observed correlations of variables, or disinterested theoretical speculation – finds little place to stand in the turbulent world of practice, which is notoriously uncontrolled, where problems are usually ill-formed, and where actors in the practice situation are undeniably "interested." (Schön, 1995, p. 29)

Practitioners, in contrast to scholars, are deeply enmeshed in this "turbulent world" seeking immediate answers to the issues that they face at the moment – answers that respect the complexity of the contexts in which they work, and value the knowledge and experience they bring to the table (Tabachnick & Zeichner, 1999). Uncertainty, complexity, uniqueness, and conflict between perspectives among the stakeholders they serve are central to the world practitioners live in (Buchanan, 1992). For them, research designs, or methodological and theoretical tools, need not be perfect or optimal. Instead, they must address the pragmatic and applied goals or problems practitioners face daily.

This disconnect between research and practice has long been a criticism of scholarly work in the field of education (Bradley, 1999; Levine, 2005, 2007). Academia is often viewed as disconnected from the everyday life of classrooms and the real-world constraints of teaching or educational contexts in practice

(Lovitts, 2001). At the same time, practitioners are often criticized for not employing the most effective research-based strategies or findings in learning contexts (Perry & Imig, 2008; Sullivan, 2005).

Schön's substantive body of work suggests that the frequently held norm of privileging academic knowledge over practical knowledge needs to be turned on its head. In this approach, practice is not just the setting for application of knowledge, but instead is the site for its generation. This viewpoint privileges the kinds of knowing that are embedded in competent practice and sees research as generating and testing new knowledge for action. Schön argues that knowledge "generated in, for, and through a particular situation of action" (1995, p. 29) can, if made explicit, be represented in ways that are transferable to other situations. Thus this "newly generated practice knowledge may be modified and incorporated into the practitioners' repertoire so as to be available for projection into other situations."

This is the argument for action research *and* its dissemination. It is at heart research that is conducted by practitioners to inform their own work, and through this, can impact the work of others as well. Speaking specifically of educators, Mertler (2014) notes that action research is characterized as research that is done by teachers for themselves. Thus, action research makes a determined and purposeful choice to see value in working within Schön's swampy lowlands of practice – by embracing uncertainty, complexity, uniqueness, and conflict. In action research, we see a cyclic process in which the researcher undertakes multiple iterations to identify problems, take action to improve outcomes, and reflect on the results, through data collected along the way (Mertler, 2008). Learning and change are the consequence of these moves, through what Schön describes as design for reflective professional practice – as reflection both *in* and *on* action. The researcher has a special place in the action research cycle, being intimately involved with the problem they are seeking to resolve (Mertler, 2017). Thus, the knowledge generated is first and foremost important to the practitioner themselves.

However, without a further push toward dissemination of that knowledge, the benefits of the research may stop at the boundaries of the context within which it occurred. For some action researchers, this may be enough. If the goal is to transform their immediate practice alone, that is still a worthy goal and worthwhile endeavor. But for many action researchers, having engaged in the deep and rigorous process of inquiry – having learned or created something that can transform practice – it is worthwhile to share their research and innovations through dissemination. This promotes the spread and transfer of their ideas from a single local context into other educational contexts and venues that may also learn and improve.

If action research is to have larger impact and value, we must consider ways to mobilize and disseminate this knowledge for other situations and contexts. Action research can result in perspectives, viewpoints, practices, evidence, and knowledge that can be transferred to other contexts – making communication crucial to the transfer of innovation. The kernels of dissemination start within the rigor and rhetoric of the study itself, and spread via the notion of transferability.

18.2.1   Proof of Concept and the Value of Transferability

Action research dissemination capitalizes on the research principle of transferability (Herr & Anderson, 2014). Transferability respects the wide variability of educational practice and uniqueness of local contexts, inviting the reader to consider what ideas might transfer to their context and how this might look or be valuable in their own setting.

It is important to distinguish between transferability and the idea of generalizability. Generalizability is the extension of research findings from the group being studied to the population at large. It is typically used when researchers describe how a statistically sufficiently large sample is representative of the larger population, and thus can claim that findings generalize to a broader population (Lee & Baskerville, 2003).

Transferability, on the other hand, is applied not by the researchers, but by the readers of the research. The readers make connections between the study described and their own or other contexts, situations, times, and populations, to improve or change their own practice or apply new ideas to it (Misco, 2007). Transferability claims are narrower and may represent local contexts, but provide readers with greater flexibility in how to apply them. Thus, the applicability of an action research study can actually be broad based on how thoroughly the researcher communicates the findings and delineates the details of the study's context. This is part of making the case for results and impact (Yilmaz, 2013).

This emphasis in how transferability is applied by *readers* of research is an important component of communicating and disseminating the results of action research. As a researcher, it is impossible to prove or identify where the study's findings would or could be applicable. Lincoln and Guba (1985, p. 316) write: "It is … not the naturalist's task to provide an index of transferability, it is his or her responsibility to provide the data base that makes transferability judgements possible on the part of potential appliers."

The emphasis on the action of the readers vs. that of the researcher does not reduce the responsibility of the researcher in disseminating the findings of their work. If anything, it raises the stakes for action researchers, since it suggests that the meaning of the research is not completely in the control of the researchers. This makes it even more important that the manner in which they present the research be lucid and clear for the audience to clearly understand where ideas may apply. This suggests that researchers need to better understand just how ideas (particularly innovations) spread through society, so that they can maximize the impact of their dissemination strategy.

18.3   Understanding the Diffusion of Ideas

Action researchers seeking to disseminate their work into the field might consider Rogers's (1962) landmark Diffusion of Innovation theory. Rogers's (1962) theory explains how ideas or products gain momentum and become diffused over time, through a population, field, or system. Social scientists and other designers and planners use this to seek an end result (diffusion) in which

people in a social system adopt a new idea, behavior, initiative, program, or product.

In this theory, "adoption" means that people now do something differently than they did before. The key to adoption is that other people must recognize the idea, behavior, or product as new or innovative – and through this recognition, diffusion becomes possible (Di Benedetto, 2015). We suggest this is important for action research, because it implies that action researchers must communicate and disseminate their work in ways that highlight, for an educational audience, just what is new and valuable in it. This requires a rhetorical move, to help the audience with the initial stage of Rogers's diffusion process – which is *awareness* of the need for an innovation.

Whether in writing, presenting, or other modes of knowledge sharing, the process begins with the action researcher understanding and communicating what is important, valuable, and new about their work. These are things an audience must be made aware of to begin the process of diffusion. This means asking and answering key questions, such as: What issues could this research address for others in education, and why would they be interested? What is new in the work (even if only relatively or incrementally)? How can the innovation be positioned and reported so as to be more transferrable to others? What is the big-picture value of the idea?

If an action researcher can answer those questions, it is feasible to begin to craft an argument that positions the work for possible acceptance in and diffusion through the world of research and practice. But not all messages are created equal. There is an art and a craft to designing messages to maximize their spread, which goes beyond just describing how it is important. It has to do with how the message is crafted – i.e. researchers must develop an understanding of and a sensitivity to the rhetorical aspects of presenting information, particularly to different and diverse audiences, each of whom bring their own differing perspectives to the research presented.

18.4   The Rhetorical Nature of Knowledge Mobilization

To disseminate research findings for greatest impact, we must go beyond single outlets or outputs to a broader strategy known as *knowledge mobilization* (KMb). KMb, "in essence, consists of all the activities and outputs that builds awareness, and enables use of the research" (Community First: Impacts of Community Engagement, 2015). This may include a wide range of products, processes, and relationships between researchers, users, and mediators. Mediators include any individuals or organizations that are involved in the dissemination of knowledge. The goal of KMb is bridging the research, policy, and practice gap in a bi-directional manner – i.e. to move research results into society and bring new ideas into the world of scholarship and research (Gainforth, Latimer-Cheung, Athanasopoulos, Moore, & Ginis, 2014).

The end result is to share knowledge in accessible and useful ways so that adoption and application of the knowledge is more likely (Gainforth et al., 2014). Thus,

KMb is not restricted to one audience or approach or medium. An academic journal article or a presentation of research findings at an academic conference are just a few of many options possible. Other KMb avenues might include developing a policy brief or news release. More non-traditional possibilities might involve creating infographics, websites, social media posts, television shorts, radio interviews, or even street theater, or other creative outlets. The medium of distribution may be face-to-face in small or large groups, or in online communities, blog posts, webinars, or messages on social media. Whatever the mode or medium, it is important to understand one's audience, and to have a sense of their general context, interests, needs, and trusted sources of information.

Researchers can expand the impact and reach of their findings in multiple media or modes, formats, and strategies, so they must consider the strengths and weaknesses inherent in different media (Briscoe, Pollock, Campbell, & Carr-Harris, 2016). They must also have a sense of the rhetoric of communication and persuasion.

Persuasion and rhetoric have rich and hallowed histories going back to Aristotle, who was among the first to describe the value of these elements in communication. Aristotle defined a rhetorician as someone who has the ability to persuade (Kennedy, 2015). Rhetoric, therefore, is the "ability to see what is possibly persuasive in every given case" (Rapp, 2010). Aristotle's greatest contribution was arguing that logic, although powerful, was not enough to *persuade*. He argued that communicating one's message to the public was a matter of persuasiveness greater than knowledge or logic (though both do play an essential part). This is particularly important for researchers and scholars who are typically schooled and trained in a certain kind of argument, one based on rigor and methodology – the strategies most valued in traditional scholarship like dissertations or peer-reviewed journal articles. But it is important to remember that the kinds of strategies researchers use are rhetorical moves as well – merely targeted to specific audiences that are amenable to these rhetorical moves. Communicating with other audiences, or using other media, requires understanding strategies that best fit that specific audience and particular medium of communication (Rice, 2007). Aristotle denotes three key strategies for persuasion – Logos, Pathos, and Ethos.

According to Aristotle, the rhetorical moves most valued by scholars and researchers are *Logos* – i.e. appeals to logic or reason (Braet, 1992). This absorption with Logos is why scientific papers construct logical arguments, build on facts and statistics, describe rigor in methodology, and cite authorities (harkening back to the citation analysis mentioned earlier).

Aristotle, however, argued that persuasion goes beyond Logos. Specifically, he described two other forms of "artistic proof" that can be used to persuade audiences: *Ethos* and *Pathos*. Ethos is the ethical appeal, an attempt to convince the audience of the credibility of the author. This typically means selecting language appropriate for the audiences to demonstrate the unbiased and credible nature of the speaker (McCroskey, 2015). Credibility is also enhanced by the use of correct grammar and syntax (in the written word or medium of choice), and language that denotes knowledge of the genre or discipline.

Finally, Pathos speaks to the emotional appeal of the argument being made, to generate sympathy or to make the audience feel what the author wants them to

feel. Pathos is a particularly significant strategy when one seeks to generate empathy (a word, incidentally, derived from pathos) to get the audience to understand and identify with the perspective of another, so as to move the audience to action. Pathos can be generated by the use of appropriate language (or symbols), emotional tone, powerful stories or examples, and even implied meanings (Gross, 2017).

There is much more known today about the psychology of persuasion than was initiated by Aristotle. It is a well-studied area in social psychological research with a slew of robust findings (Petty, Ostrom, & Brock, 2014). For instance, Cialdini's work on persuasion and the six principles of persuasion (based on research conducted in both laboratory and real-world settings) should be essential reading for all those who are interested in KMb (Cialdini, 2001, 2004). Covering this area of persuasion would be impossible in a single chapter. It is an area of study replete with rich resources, books, and sources of information. We point to this merely to suggest it as a direction for further consideration for action researchers interested in impact and dissemination.

To summarize, we offer the following key ideas. First, there is no one right way of disseminating the findings of research, since this can span multiple audiences, methods, and media for communication. Second, scholars and researchers are often unaware of these rhetorical modes of persuasion, and this is a major bottleneck for the dissemination of their ideas. Third, much is known today about how persuasive messages can be crafted, and this knowledge should be examined for a researcher's toolkit in communicating their work for impact. Finally – and this is particularly true of action research, but applies to other forms of applied research as well – KMb does not begin when the research is done and the findings are established, but rather should be a key part of the process, from the very beginning.

Participatory action research by its very nature includes KMb at the inception of the research to develop buy-in for the intervention or innovation. For instance, a meeting bringing together researchers, educators, and parents to identify the social-emotional needs of children and develop strategies to meet those needs is both central to the research project and part of a KMb strategy. Connecting with and communicating to other practitioners and stakeholders happens throughout the action research process, and building a network of connections along the way can further build a network for an audience later (Venkitachalam & Bosua, 2014). Moving strategically and thoughtfully in rhetoric and communication of ideas is woven into the process of action research, but it is also part of public dissemination modes later in the process. In the next section, we review key options as modes for sharing action research, through traditional and non-traditional means.

18.5   Scholarly Dissemination: From Practice to Print or Presentation

Scholarly modes of research dissemination are often held up as the gold standard of academia, yet they are also criticized as disconnected from diffusion into practice or for having a narrow, specialized appeal (Berliner, 2002). Hence, when it

comes to scholarly dissemination of action research innovations, a key question might be "why?" If the immediate goal of action research is to impact practice, one might wonder what the value is in targeting traditional modes of scholarship. The research–practice gap itself may be reason enough for practitioners to consider aiming their work for scholarly outlets, as it can bring a much-needed practical take on research into academia (Stringer, 2008).

Action researchers are uniquely poised to overcome the research–practice gap, since their very nature bridges this gap. They possess both hard-won contextual knowledge of practice and the training to engage systematic inquiry (Wesley, 1957). This requires a certain amount of translation and fluidity in moving between methodologies, theories, research, and real-world contexts and innovations (Perry & Imig, 2008). Thus, they can bring a much-needed sense of practice-based research into academic journals.

Here, we transition into a more pragmatic discussion of the goals, benefits, and challenges of traditional scholarly modes, with practical considerations for action researchers considering dissemination through these modes.

18.6 Traditional Scholarship

Types of traditional dissemination can be roughly split into two key domains: publications in journals and presentations at conferences.

We begin with publications, in which there are different options for sharing research, including (but not limited to): peer-reviewed journal articles, practitioner journal articles, or books. There are also different types of articles that a researcher might consider publishing from an action research study, including (but not limited to): theoretical foundations or literature reviews, scholarly research, exemplars in practice, or other topical learning pieces arising from the study. We provide a brief overview of each of these considerations, as possibilities for more traditional modes of dissemination, before moving on to other, less traditional modes of dissemination later in the chapter.

18.6.1 Peer-Reviewed Academic Journals

Peer-reviewed academic articles are often thought of as the touchstone of quality research (the gold standard, as it were). A peer-reviewed article is a piece published in a refereed journal after it has been subjected to multiple rounds of review and critique by scholars with expertise on the topic. The goal of peer-review is to ensure that published articles reflect solid scholarship that can contribute to progress or the state of knowledge in a discipline.

This description might lead one to assume that this is the best mode of scholarship for an action researcher – which may, or may not, be true, depending on the goals of the research and researcher and who their audience is. Peer-reviewed academic journals offer an opportunity to connect one's research with academia, which does allow a certain type of diffusion into the field. Since such journals are typically read or referenced most often by academics and scholars, they position

one's work within the field of research and academic inquiry. This is a beneficial goal in terms of staking out a position in scholarly circles. Yet, while there may be no drawbacks to publishing action research in a peer-reviewed journal, and benefits to doing so, there are also key considerations to factor in before aiming work at such a venue.

The first is to consider for which journals the research might be a good fit. If it is submitted to a journal that is a poor fit, it is likely to be rejected, but only before getting held up in the review process for a time that the piece could otherwise be in consideration for a more suitable journal. Journals vary widely in their focus and range. Some focuses are quite broad – such as teacher education, educational psychology, or higher education – meaning that a range of different study topics could fall within these categories. Other journals have a more specific focus, such as around specialized areas of pedagogy or practice (for example, computer-supported collaborative learning, or adult vocational behavior). An action researcher must consider the topic and scope of the study to choose an appropriate publication fit. They may do so by reviewing journals in the field through access in an institutional library, through general internet searches, or by reviewing lists published by journal indexing companies like Scopus or Scimago.

But, in addition to considerations of topic, a researcher seeking to publish in a journal should ensure it is open to action research methodologies, or to studies of the scope and type that they have to offer. In some cases, highly competitive scientific journals may only publish studies with certain experimental methodologies and/or claims to large-scale generalizability. While these journals may initially appear desirable based on reputation or impact-factor, one must consider whether they are likely to publish a local or action research study. This is not to say that local studies or action research approaches are not worthwhile. Our position is that such studies have a great deal to offer. The point is to note the issue of article-to-journal fit, and to recognize that some journal venues are limited in the types of works that they publish. Importantly, there are also countless respectable or high-quality journals in any field that are open to varied methodologies and approaches, including action research. In order to identify good potential journals for one's article, there is an element of investigation that goes into first finding journals that look like a potential fit in terms of topic, scope, and research approach (based on library or internet searches), then reading over the journals' stated information and background, and looking over articles in their recent issues, to better determine if there is a possible fit.

Once a journal is identified, one way for a researcher to increase the possibility of getting an article accepted is to become familiar with the conventions of the journal, by attending to author instructions for the journal and reading over other or similar articles published there. Beyond the considerations we have already noted, what will make an article attractive to an audience goes back to the awareness issue in Rogers's (1962) Diffusion of Innovation theory. This requires a rhetorical move in the writing – to position the work to open up the audience (by convincing the key gatekeepers, namely the editors and reviewers of the journal) to an awareness of the need for this study and the innovation it offers. Beyond this, the conventions of academic research writing may be structured based on the study and the journal itself.

Peer-reviewed academic articles offer an opportunity for action researchers to diffuse their work into the arena of scholarly thought and writing. We have noted some factors that may help to guide action researchers in considering when, where, or how to approach bringing their work into an academic journal setting.

18.6.2   Practitioner Journal Articles

Another key and important consideration for publishing action research is practitioner journal publications. In many ways, these publications offer an ideal venue for bringing quality action research to practitioners. Practitioner publications are journals that are aimed at a particular professional market. They are often selective about choosing quality content that the journal believes would be of interest to, and influential for, practitioners. For that reason, they become an attractive venue to a practitioner action researcher, because such publications present an opportunity to disseminate what one has learned directly into practice, as a leader or exemplar to other peers and colleagues in their professional arena.

Such articles are also published in print and/or online databases, thus increasing dissemination. They are not aimed at an academic market of higher education faculty, but instead seek to influence professionals or offer them work of interest to their development. Writing for such publication means, again, considering the audience and what they need, as well as the appropriate rhetorical moves for this audience and genre. There is significantly more emphasis on providing practical implications than there would be in a peer-reviewed academic journal, and less emphasis on empirical research methods or rigor in argument, theory, or study design. Practitioner pieces are sometimes peer-reviewed, but more often may be selected by the journal's editor, and thus may move faster into print, providing the possibility of relatively quick impact.

Many of the same general points of publishing described in the previous section on academic journals apply to practitioner journals, as well. For instance, practitioner journals may have a broad topical scope, such as being targeted to the whole field of teaching, or a narrower scope, such as being targeted to a niche area of education. Also, many professional associations publish their own journals, which often have wide readership among members. So again, it becomes important to consider the topical fit of a study for a journal, and perform due diligence in researching to see where a piece of action research might best fit.

The most straightforward way to understand the journal's audience is to look over a range of recent articles from the journal. While the articles may be varied, there will also likely be some similarities in structure, style, tone, length, voice, and approach – the rhetoric of it, as it were – based on the conventions of the journal. This can help an author to craft the writing in order to increase the likelihood that editors will consider and accept the work.

Writing to a practitioner audience means providing useful and practical takeaways or new understandings gleaned from the research, in clear and relevant terms. Again, understanding the norms of the journal and being sensitive to what is important and valuable in the study will support this. Identifying these points

aligns it better with practical focuses of such journals – and, thus, offers one more key mode of dissemination through important traditional means.

18.6.3 Types of Article Publications

There are multiple possibilities for article types that might come out of an action research study. We have noted that there are both academic and practitioner venues – but beyond this or considerations of topic, there are options for genres of articles.

An action researcher might immediately consider one of the most common and straightforward genres for writing up a study – the *research-based academic article*. These articles are the bulwark of the academic writing genre and are common in scholarly peer-reviewed journals. Their format varies a little from journal to journal, but there are common foundations. They often suit the structural conventions of a dissertation or typical research study report, by introducing the problem, reviewing the literature, and sharing methods, results, and discussion. These commonalities may make this article format seemingly intuitive as an output of a completed action research dissertation, thesis, or study. Yet it again requires careful planning as an author, to extrapolate, condense, and synthesize the key points or findings from the study – in a way that offers scholars, reviewers, and journal readers something compelling and scholarly. Practitioner journals also allow for research-based articles, but the style and tone are often more succinct, applied, and practical, with less focus on methods or theories. Reviewing other articles in the journal being targeted for authorship is key to understanding these styles, tones, and structures – both for academic or practitioner journals.

A perhaps slightly less common, but also valued, type of article is a *literature review* or *theoretical foundations* piece. These types of articles do not aim to report on a study's findings, but instead review the literature and/or offer new models or theoretical considerations to consider. Action research dissertations or theses inherently require a section or chapter that reviews theory or literature. In order to write this into a full-fledged journal article, it is not enough to merely summarize the literature review chapter or section of a study. It is essential to frame the rhetoric so as to help the reader understand what the review offers and what is new or interesting in its analysis. Further, while most action research studies do not aim to generate new theories or models in a field, some do result in such new ideas. This offers potential for *theoretical foundations* articles, which offer up new ideas, theories, or models to the field of research or practice. While many practitioner journals do not focus on standard scholarly literature review pieces, some may be interested in articles that offer up such new models or ideas that are framed to impact practice.

Finally, *perspective, opinion*, and/or *commentary* pieces are a genre found in some research or practitioner journals. These pieces are often shorter in length, sharing a perspective or authorial voice on a topic. These may involve essays offering a personal point of view critiquing widespread notions in the field; they may share opinions informed by research or scholarship on a subject; or finally, they may offer commentary on current or prevailing issues in the field. These

types of articles emerge differently across journals. Given that they are less common, they may not be a first consideration for publishing action research. However, if an action researcher has findings, innovations, or other resultant work from their study that could inform such commentary or thought pieces, this genre is certainly an option. Considering the journal before writing and submitting such a piece is key. This is because some journals may offer these opportunities only by invitation to established scholars, while other journals are more open to well-grounded, research-informed, and thoughtful commentary from any author with ideas that have impact.

18.6.4 Practitioner Books

Practitioner-oriented books allow publication and dissemination of action research in a more in-depth way with broader implications, space to elaborate, and discussion of applications for other practitioners. Such books differ from typical scholarly handbooks or edited academic books, which feature collections of articles or chapters from academic experts on particular topics.

These practitioner books are more practical-knowledge types of books that are aimed at extending knowledge for professionals in a discipline. For instance, such books for teachers might focus on any range of topical areas relevant to schools and classrooms. They are written to be accessible to wider audiences than articles in journals (which may either have limited membership or circulation, or be limited by access). Practitioner books from reputable publishers are sought out by professionals wishing to learn and improve their practice. These points make them an excellent means of dissemination of research. However, since writing a book is a much more involved process than writing a journal article, the bar to entry for authors can be higher and requires more thought, planning, and work on the researcher's part. This includes identifying a potential publisher, crafting a proposal, and writing the manuscript. An action researcher must first consider if there is enough material in their study for a book. This means mapping out a potential chapter structure that effectively communicates ideas in clear, applicable, and compelling terms to be readily consumed and applied by professionals. Identifying similar books in the genre is a helpful start, and this may also help in identifying some key publishers to approach. Reviewing those publishers' websites helps identify their required process for proposing a book, as well as key points of contact with the publisher and/or possible templates for writing up a book proposal.

The same considerations of rhetoric and strategy that go into positioning an article are also needed for a book – but often in different ways. Publishers seek to know up front who the intended target audience is for the book, some titles of comparable books in the genre, and how the book will fill a need or an interest in the market. They will also require an outline of the book, possible sample chapters, and more. In short, proposing and writing a book requires a clear and mapped-out strategy for how the ideas will be communicated and how they will add value for an audience.

This is an exhaustive process of crafting a rhetoric that communicates research in accurate, compelling, useful, and digestible ways – a rhetoric that is both in-depth

and packaged for professionals. As it must be clear, it also requires considering all three aspects of Aristotle's ways of persuasion. Yet for the motivated action research writer, it may be a path worth considering, as it could have the momentum of the publisher and an interested market to promote dissemination. Entering into the authorial process for a book is not necessarily the first publication mode for any author – in fact, a practitioner journal article may be a good first step toward identifying an audience for a book. However, for researchers who can plot out a detailed and persuasive argument from their research – with enough applicable and practical material for a book – it is a compelling way to disseminate work and make a space for it on the professional market.

18.6.5   Conference Presentations

Finally, conference presentations provide action researchers with an excellent traditional means of disseminating their ideas to the field, as well as networking for social-professional connections with others interested in this work. High-quality action research is an essential fixture at academic/scholarly conferences, practitioner-centered conferences, and conferences that blend both. Conferences that feature action research may be organized broadly for the whole field of education, such as the American Educational Research Association conference, or more narrowly, such as local, regional, or national conferences that feature specific topics such as educational technology or special education. It is essential to start by identifying what kind of audience one wishes to present to. Certain conferences offer excellent opportunities for more applied and practical discussions or sharing of usable knowledge with practitioners. These professional conferences bring ideas directly into the space of people who may use and adopt them. Academic conferences may allow for more traditional scholarly sharing of research findings, giving the action researcher an opportunity to situate their work further within the field of scholarship. Such conferences may also publish proceedings, which allows presenters a further opportunity to publish their work as a text. Either or both approaches have clear benefits for sharing, networking, and disseminating work into research and practice. As with the other modes, we suggest to begin with the strategy of deciding some key things: To what audience should the work be presented? (e.g. who would care about this and who would be interested?); Where should the work go? (e.g. what kind of venue to aim for?); and, what are the key ideas and takeaways to emphasize? (e.g. what is compelling here that this audience in this venue would seek?).

Action research studies are rich and detailed, living at the intersection of research and practice – meaning they may have many audiences or potential places for dissemination. The key for a motivated author, presenter, and disseminator is to take all of this into consideration and plan out a strategy for publishing and presenting. This requires a mindset that does not become disheartened if work initially gets rejected from one venue. Many works that later became excellent published articles or presentations were initially rejected from one place before finding a good home in another journal or conference. It is essential to use feedback to revise or simply re-strategize to reconfigure a piece or identify a

more fitting venue. Like action research itself, the dissemination process is cyclical and requires patience and willingness to regroup and revise.

18.7   Non-Traditional Media or Approaches to Impact

While traditional modes of scholarship provide one obvious but important path toward dissemination, other less traditional modes exist and are constantly emerging as new media evolves. Traditional scholarship remains and may always be of great value in the field. However, as new approaches and media emerge on the scene, so do the options and modalities for heightening the connection of action research to the world.

18.7.1   The Changing Landscape of Non-traditional Approaches

It takes time, effort, and iteration to prepare even one journal article and have it accepted. Peer reviewers and editors function as gatekeepers in such arenas, deciding what does or does not make it into print or out into the field. There is nothing inherently wrong with this, and in the genre of traditional scholarship, gatekeepers make sense and are necessary. But it presents a somewhat higher bar to entry than other more emergent forms of dissemination, such as social networking, social media, blogs or websites, video and content sharing, and more. The benefit to those who wish to share ideas and content online is that there are fewer (or maybe even no) gatekeepers, and few bars to entry beyond digital access and a computer. The audience is the decider of what ideas they wish to engage with, rather than editors or peer reviewers. In some ways, new media democratizes the opportunity to connect with audiences.

Henriksen and Hoelting (Henriksen, Hoelting, & Deep-Play Research Group, 2016) suggest that new media offers much to the landscape of creative sharing, as seen in approaches such as crowdsourcing of data or ideas, or the constant new stream of applications for sharing video, audio, images, or text. For example, YouTube, Vimeo, or podcasting applications allow users with basic audio and video technology to craft their messages in audio narratives or video discussions and share them with the world. Given the range of web hosting and building services available today, websites or blogs can be created with basic technology skills and limited resources, offering opportunities for action researchers to craft a public identity online and share their scholarship openly with other professionals. Regularly updated blogs that communicate new, interesting, or compelling ideas, resources, or applications for an audience often generate interest and readership over time. There is a certain amount of strategy that goes into using any of these media effectively. The same logos, ethos, and pathos described previously for crafting a message may help to communicate ideas compellingly in various forms. Generating an audience requires both understanding and experimenting with the medium you are using, and building and maintaining a network through connections with other relevant professionals, channels, or accounts online.

We do not present an exhaustive list or description of specific tools and new media offerings – mainly because this would not be possible, as new technologies

are essentially a moving target. New ones enter the scene constantly and old ones drop away, and patterns or trends in usage are akin to shifting sand (Zhao, 2012). For an action researcher wishing to engage in new media for dissemination, we suggest that a mindset open to engagement and technology fluency (not expertise, by any means, but simply a basic comfortable level in trying out new tools or media) is more important than knowing an inherently changeable list of tools or categories.

18.7.2   New Technologies and Social Scholarship

James Gee (2004) speaks to the importance of shared affinity spaces and the role that new technologies can play in developing what Veletsianos and Kimmons (2016) have called "social scholarship." Social media tools such as Twitter, argue Veletsianos and Kimmons, allow scholars to construct virtual spaces to share work, insights, and findings around matters of shared interest. As they note, "Researchers need to explore a wider range of scholars' activities to fully understand their online lives and participation" (Veletsianos & Kimmons, p. 8), and through that develop identities as public intellectuals who "write" across multiple digital genres. Semingson, O'Byrne, Mora, and Kist (2017) make a similar argument for the importance of becoming part of this new learning/scholarly ecosystem for scholars and researchers.

There are, of course, challenges to this. It requires researchers and scholars to consider their digital identity and footprint and its relationship to their "offline" identities, and to become comfortable navigating these boundaries. This is particularly important since different social media often involve engaging with different audiences, where authenticity of voice is key. As Semingson et al. write, "Social scholarship as a process connects formal scholarship with informal, participatory internet-based civic practices while espousing specific values, e.g. openness, collaboration, transparency, access, sharing" (p. 361). Curating one's digital identity, digitizing a workflow for efficiency, and connecting with others on a continual basis to establish and maintain relationships take time and effort. There is little guidance to researchers on any one best way to do this. A final challenge is how such digital, networked social scholars demonstrate the impact that their presence in these spaces has on actual practice. There are no metrics like citation analysis or Google Scholar h- and i-indices (however imperfect those metrics may be) to describe impact, which makes it challenging to untenured faculty or busy working professionals seeking a measure.

18.8   The Need for Strategy

As must be clear, action research dissemination is an important but complex process. While some may think of dissemination as beginning when the research ends, it is actually essential along the way for communicating with and convincing other practitioners or stakeholders to participate. For example, a classroom teacher trying to implement a teacher professional development program throughout her school will need support from other teachers and administrators.

Similarly, any local context for action research involves multiple stakeholders who may participate in, give permission for, evaluate, or otherwise be part of the intervention. Crafting a narrative and research process that supports transferability is also part of this. Thus, action researchers must consciously think of communication strategies at every stage of the process.

That said, we have focused much attention on dissemination that occurs later in the research cycles or after they are complete. Once a study and its innovation are complete and the data evaluated and reported, the researcher has something to offer even beyond their local context. Local dissemination is still key, because practitioners may share their findings with the immediate stakeholders – via presentations to colleagues, written reports, professional development, or forms of sharing within the organization or institution. However, because action research can serve as a bridge between research and practice, post-research dissemination strategies help spread findings and innovations more broadly to the field or other interested practitioners.

The word *strategy* becomes key, referring to a plan of action designed to achieve a major or overall aim, which can help to guide dissemination. A researcher's strategy need not be lengthy or formal – it might be written up in a set of personal notes or sketched out in any simple format. Strategy is an essential concept that speaks to the need for forethought and planning in deciding how, when, where, what, and to whom the research will be disseminated.

Given the vast possibilities of audiences, media, publishing forums and formats, and presentational strategies (of which we have only scratched the surface here), it is important to make decisions and map out a basic plan of the details or directions for dissemination. New opportunities may arise along the way and the researcher can stay nimble and open to these. But starting with a general strategic plan – of what material to publish, for what audience, in what venues, and how to structure and shape it – helps to avoid the pitfall of wandering or throwing ideas out ad hoc (Whittington, 1996).

Beyond answers to basic questions that shape a strategy for dissemination, we return to the manner in which innovations diffuse across society, identifying *why* research is important, the broader construct of KMb, and the rhetorical moves that are needed for different genres of dissemination. If we consider KMb as the activities and outputs that build awareness and enable use of the research, this provides a framing device for strategy. In particular, the rhetorical moves and modes of logos, ethos, and pathos are again important for considering the creative devices and narrative moves that the researcher makes in authoring, presenting, or packaging their work for broader use and consumption. The affordances and constraints of a blog post versus a journal article versus a tweet are vastly different, and thus the rhetorical moves of an author must be different. This means thinking about when to appeal to logos via logical argument, when to appeal to ethos through an ethical case for credibility, and when to appeal to pathos by tapping into an empathetic or emotional connection for an audience. Each of these modes may be used in different blends and balances based on the norms of the mode (e.g. scholarly journals will often seek more logos and ethos, while a presentation to teachers might include these but also weave in some pathos as emotional or empathetic appeal). These moves of rhetoric, alongside

the pragmatic concerns of authorial strategy, become part of the larger strategy for KMb and can help flesh out a fully realized and forward-looking approach to action research dissemination.

18.9 Conclusions

In this chapter, we have pointed to the importance and value of dissemination in action research. Action research at its heart is an approach that, as Mertler (2014) notes, is conducted *by* practitioners *for* practitioners. This means that innovations, findings, and lessons learned from any action research study are inherently connected to practice, and other practitioners can find value in them. Action research is also a scholarly process of systematic inquiry and thus has much to offer in academic or research settings. Given this, we reiterate that action research is well positioned to address the challenges of the research–practice gap in the field of education. But this positioning is most advantageous when the researcher is thoughtful, active, and strategic about dissemination. This means attending to the value of KMb and to how rhetorical principles can help communicate the work for impact, in appropriate modalities.

We have covered some essentials of different types of dissemination modes – both traditional and non-traditional, scholarly and practitioner-centered. They key point is the need for an action researcher to be strategic about where and how to place their emphasis for dissemination. Taking stock of the essentials of what, when, where, how, and for whom to publish are helpful for starting to lay out a strategy. This converges into a well-crafted approach to improve the impact and heighten the potential for effective dissemination.

Looking ahead, the challenges for the field of practice in any area are significant, but this is particularly true for education, where the complex problems of the twenty-first century are keenly felt by thinkers, teachers, and learners of all ages, across many contexts. Action research has the power to make changes that allow for powerful improvements felt at the local level, and across these local contexts, there is great collective power. But this power becomes multiplicative when researchers find ways to disseminate the work and share it out for even broader impact, so that other practitioners and scholars can benefit and feel the effects too. Strategy, rhetoric, KMb, and, of course, high-quality action research processes are all part of this – bringing the world of local scholarship to meet the larger world of research and practice.

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19

Action Research for Systemic Change in Education

Emily F. Calhoun

Envision the potential of living an *action research life*:

> Imagine joining a school district where the vision and reality for employees is "When you join our district, you enter a learning cycle that never stops. If you join us, we expect you to study and facilitate learning – for students, for yourself, and for colleagues – and we will support your efforts."
>
> Imagine entering your undergraduate education courses and the professors have designed them so that you learn both the content of their discipline and how to learn and solve problems within it and apply its uses across disciplines. Professors will model for you and share their thinking; they will expect you to identify and analyze the content, process, and rationale for the curriculum components and the instructional processes being used; and they will expect you to assess and expand the content to support your learning. From the beginning of the course or program, both the professors and you will study your knowledge acquisition and your progress in learning how to apply this knowledge and both will take actions as indicated by the data.
>
> Imagine joining a school where faculty members are welcoming and energized because they work together studying student learning processes and products, raising issues and establishing common goals, building knowledge through studying the external knowledge base as well as promising on-site practices, identifying actions to test and problems to solve – all as part of a disciplined, but not regimented, learning community focused on improving teaching and learning.
>
> Imagine a child entering a pre-school or kindergarten classroom in which she is expected to and supported in building her learning capacity and in using all her inductive, inquiry, and problem-solving skills to continue building language and communication prowess and mathematical and scientific knowledge – those same inquiry and inductive skills that helped her acquire knowledge of her native language, helped her learn to

discriminate "Gran" from "Aunt Em" and a "small" piece of pie from a "large" one, understand and use "More!", and communicate with volume, emphasis, and audience selection, as in "Please, Daddy!" She's in a classroom where the teacher has learned to use the curriculum framework to guide – and not constrain – learning, where instruction builds on what students bring with them, and where continuous formative assessment to shape that curriculum and instruction begins when the child walks in the room and first expresses herself.

Each scenario above occurs within a system – a school district, a university or department within a university, a school, and a classroom – all of which exist within a larger system. Each represents a result of *action research for systemic change* as it will be used in this chapter: major changes, not just peripheral or tinkering around the edges, occurring within a complex social system, in which interactions and roles change, values and actions change, and – while learning and inquiry will modify them – the values that evolved or drove the changes are resilient and will sustain the actions and the learning environment. Systemic change as used here can happen in a single classroom, across classrooms that comprise the school, across schools that comprise a district, and across districts, regions, and states. At the classroom level, systemic change occurs when a teacher works to increase student learning by implementing new instructional strategies that engage her students in different ways with academic tasks and with each other. As she continues to learn, her instruction moves from having occasional lessons that meet her goals to having lessons each day in which students develop the knowledge, skills, and metacognitive understanding she wants for them.

Changing every component that comprises or interacts with a system or all levels of education may be desirable, but it is not a critical attribute of systemic change as used here. With that said, the focus *will be* on using action research to support learning and change in formal, bureaucratized organizations – especially the larger, more complex educational systems such as schools and school districts. The use of action research can help transform these organizations into learning environments for all, making it possible for students, teachers, administrators, and community members to do things they could not do before.

As is obvious from previous chapters, action research has a sturdy history in education. While its formal use and published emphases have varied over the past eight decades, its use as a vehicle for learning and as a disciplined inquiry process for developing and evaluating thoughtful changes in practice has endured. However, as a process that many believe originated out of Lewin's work to improve intergroup relations within organizations and communities by having group members apply the tools of social science to immediate, practical, major problems (1946, 1947, 1948), it appears ironic – but not surprising – that over time, especially the past 40 years, it has found more fertile ground in supporting inquiry and action by individuals and small groups of two or more individuals with similar interests, concerns, goals, or values, while its use for transforming public institutions into learning organizations has found rockier soil.

Available in the literature are reports of individuals changing their perspectives on teaching, adding to their knowledge-in-practice, modifying their curricula, and collaborating with students as participants in the action research process. There are reports of graduate students expanding their knowledge and skills through action research projects, of small groups working together to change how mathematics is taught in their grade level, how writing is studied and results are used to support students as writers, and how the music program can reach more students. However, there are fewer reported instances of action research being used to transform organizations such as schools, school districts, intermediate service agencies, state departments of education, and university colleges of education with their more expansive social systems, regulations, and hierarchies.

Why is the use of action research as a structured change process for developing learning organizations so scarce? Some reasons surface easily: lack of knowledge and skill in using action research; different views of its purpose (e.g. the emphasis on teachers as individual researchers contrasted the with emphasis on group interactions and applications of democracy to support learning and change); fears of de-professionalizing teachers if they are required to participate in school-wide or district-wide change processes that may not match their theory of personal learning or practice; lack of advocacy by gatekeepers and officials within organizations, and thus its absence also from the expressed missions and visions. In terms of its use for systemic change, many educational institutions are so compartmentalized and the labor so divided that working together to create a healthier learning environment for all by changing organizational components – i.e. policies, work tasks/schedules/assignments, hiring practices, relationships – and using the interdependencies to productively support learning and attain collectively valued goals seems not just improbable, but impossible.

Yet, Lewin's description of how the process of action, research, and training together can "transform … a multitude of unrelated individuals, frequently opposed in their outlook and their interests, into cooperative teams, not on the basis of sweetness but on the basis of readiness to face difficulties realistically, to apply honest fact-finding, and to work together to overcome them" (1946, p. 211) – which seems so relevant for those seeking to improve learning and create healthier learning environments – appears so seldom in today's institutions, whether educational or other.

Therefore, we need to consider the nature of the defining attributes of action research and the rationale for its use, followed by some examples, and a discussion of what is needed to strengthen and support its use as an embedded mode of operation in educational systems.

19.1 Defining Attributes of Action Research and Their Value to Healthy Systemic Change

Definitions of action research vary. But, in education, most include these common attributes: careful study and reflection of one's work, and its effects on others and/or the learning environment, often pursued as an inquiry; the

identification or clarification of an issue, problem, or goal; collecting, organizing, and interpreting data and information related to the identified focus; developing a plan and taking promising actions; evaluating effects and communicating results; and continuing the cycle based on the results or moving on to a new area of focus. While the phases of an action research cycle often depict a sequential process leading toward action, individuals or faculties frequently move back and forth between phases as they seek to refine or clarify information and identify the effects of actions being taken.

Why does action research have such potential as a structured approach to systemic change in educational institutions? For those seeking school-wide and district-wide improvement in terms of increasing student learning and creating a healthier professional workplace, action research captures the notion of disciplined inquiry (thus, "research") in the context of focused efforts to improve the quality of the organization and its performance (thus, "action"). Part of the integrity of the process for educational institutions lies in the union of the "researchers" and "action takers" – for "action research" is conducted by those persons responsible for bringing about the change, with the intent of having all group members or faculty members involved in the study of their practice and its results on student learning. (Some school and district faculties will include students, parents, and community members from the beginning; others will bring these stakeholders in as they become more skilled in facilitating action research processes.) The active engagement of all members of the organization is needed to generate collective knowledge, support, and synergy for bringing about the desired changes identified in the goals that surface and to generate collective responsibility and efficacy around results. Operationally, this description of action research relies heavily on Kurt Lewin's conceptualization and on the role of inquiry in the life of educators and educational organizations as described by Stephen Corey, Robert Schaefer, and Herbert Thelen and the pragmatic, problem-solving, and democratic principles of John Dewey (Calhoun, 1994).

Another benefit of using action research at the organizational level is that it creates a more welcoming culture for individual and small group inquiry by professional learning communities (PLCs), grade-level teams, or departments. Organization-wide action research may be comprised of a range of action research projects occurring simultaneously, by trying different instructional methods while addressing the same issue or pursuing similar goals.

Also, sometimes desirable outcomes conflict with the history and culture of an institution – e.g. supporting the learning and development of special needs students by including them in "regular classrooms," use of heterogeneous grouping and ad hoc grouping to support student learning, and the role that cultural and racial diversity can have in strengthening the education occurring in classrooms and school districts. In these cases, an action research process that includes regularly scheduled opportunities for discussion, mutual study of the effects of current actions, and explorations of other practices may help prevent massive rejection or superficial compliance, as well as develop understanding of the reasons for pursuing changes.

The remainder of this section will focus on attributes embedded in the above descriptions of action research and its conduct. Because of this author's

experiences with organizational action research, these attributes have been selected for additional discussion. They have to do with (i) the orientations, beliefs, and sociocultural interactions of those who would conduct action research; and (ii) the role of context in setting goals and selecting questions and issues to pursue. Much of the discourse will focus on individual and collective orientations and beliefs because these seem to be less well-tended than they need to be in organization-wide or organizationally supported action research aimed at improving student learning and professional learning. Negligence in thinking about these constructs would likely limit the impact of any systemic change effort, but especially one whose success depends so much on the work of practitioner researchers located in what are often highly regulated educational institutions.

19.1.1   Perceived Locus of Control, Sense of Agency, and Efficacy: Desirable Outcomes Can Result from Individual and Collective Action

Three closely related constructs influence individual and collective motivation to act and persistence in the face of challenges: (i) perceived locus of control (LOC; to what degree is one responsible for circumstances and outcomes in one's life space, often depicted as a continuum from external to internal and as situation dependent); (ii) one's sense of agency in the workplace (that one can take action and have influence); and (iii) perceived self-efficacy (the strength of one's belief in the capacity to design avenues and to bring about specific outcomes). *These three constructs form the core of the rationale for using action research for systemic change.* Whether consciously acknowledged or not, they influence the extent to which action research will be chosen as a change process by individuals, groups, or those who provide access to organizations, while at the same time one of the benefits of conducting action research is its potential to strengthen a sense of professional agency and individual and collective self-efficacy, thereby generating more energy and commitment for continued learning and the pursuit of desirable goals (see Rotter, 1966, for the original conceptualization of LOC; see Emirbayer & Mische, 1998, for an overview of various formulations of agency, and Bandura, 1999; and for self-efficacy, Bandura, 1977, 1993).

19.1.1.1   Locus of control
Once again, it is the individuals in the building, the district, or the department who must make and sustain the desired changes and continue the journey. To what degree do those responsible for making the changes believe that they have the power to do so – that the changes and events attendant to them are within their realm of control? Do they expect that through their efforts they can change the environment and do they feel a sense of responsibility for the outcomes? Or, do they feel helpless, almost a victim of the system within which they work? In education, how often does one hear sentiments such as these expressed:

> "It's on the test, my kids are going to be evaluated on it so I *have* to get to it whether they're ready or not."
>   "Well, there's nothing we can do about it. It comes from the top."

> "Our students need analytic phonics as much as they need synthetic phonics, but it's not in the materials our district adopted. And our curriculum director has been very insistent that we follow these materials because they will help improve our test scores. So … I worry about it, but I guess maybe others know more than I do. They say it's 'research-based.'"

The conduct of action research is no panacea, but its use can help organizations foster adaptive capacity, helping individuals and groups modulate their LOC orientation. For a durable orientation in all situations toward either extreme – i.e. internality or externality – can be unhealthy for the individual, and in collective enterprises such as school reformation, extreme orientations may lead group members to withdraw or revolt, removing themselves physically or at least cognitively from the work of the group. So, the pursuit of systemic change needs a process that fosters positive cause–effect sentiments and expressions such as these:

> "I am an important part of this effort. My actions can influence the outcomes, and it is within my realm of responsibility as a member of this organization to shape what happens."
>
> "If I work with parents or caregivers, I can help my students be in school more often. It's difficult to teach them how to read when they are absent so often."
>
> "Disciplinary literacy has a lot of promise for helping students engage with different types of content and in different settings. Let's give it a try in our department."

With the best intentions and funding – and the hard work of some – many PLCs, grade-level and department meetings, and professional development teams are not yielding positive effects on student learning. If colleagues are asked too often to invest their time and life in the next popular initiative that produces few positive effects for their students – for myriad reasons – many will eventually close their doors, either physically or figuratively, and as Huberman (1992) said, "withdraw from participation in multiple-classroom changes or more 'systemic' changes at the building or district levels" (p. 1). This increases the isolation of teachers, decreases opportunity for social learning, may well limit learning opportunities for students, and costs the system the cognitive engagement and energy of these teachers. The effects of these moves away from collective action, and belief that they are not worthwhile, are the opposite of what is needed for systemic change.

In selecting or developing change processes and rational but flexible plans of action, educators doing the work must have control of options for action, and not just responsibility for results. When one hears "just tell us what to do" or "just tell us what you want," remember that this may well be a conditioned response caused by past experiences and that the response can be changed.

For those interested in learning more about LOC and exploring its relationship to organizational change, see Ajzen (2002) on LOC and planned behavior; Kormanik and Rocco (2009) on LOC and planned organizational change; and Ng, Sorensen, and Eby (2006) for a meta-analysis of LOC and work outcomes.

19.1.1.2 Agency

Sense of agency – fashioned from past experiences, conceptions of the future, and present circumstances – influences one's willingness to act (Emirbayer & Mische, 1998). Along with these internal visions, the social structures and routines within an organization can constrain or encourage actions that are beneficial to the common good (Sewell, 1992). Mandates with little-understood rationale or local ownership, aggressive and invalid evaluations of students and teachers, and scripted instructional protocols have pummeled some educators and faculties in ways that have diminished both individual and collective sense of agency. The *No Child Left Behind Act* (2001; US Department of Education, 2002) did much damage to educator's sense of agency. More broadly, the dismal implementation history of even the most promising ideas (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Fullan & Pomfret, 1977) serves as a reminder that improvements in student learning or changes in classroom practices will not occur unless educators choose to engage with them.

To conduct action research, a practitioner must believe, or come to believe through experiencing action research, that she can be a change agent – influencing her individual experiences and the sociocultural environment of the classroom, school, or district – and be willing to be influenced by evidence and the actions of others. This sense of agency pertains to the pursuit of individual and collective action research. In collaborative and organization-wide action research, one desirable outcome is that all members of the group are or become change agents as they engage in inquiry into their practice and into the learning environment they have created or that surrounds their work, study the results with students and colleagues, take actions, and continue their action research learning cycles. Thus, action research creates knowledgeable and skilled distributed leadership. This sense of agency by individuals and groups seeking to change educational institutions into learning organizations is necessary in pawing toward an "ideal" conception of educational institutions as learning organizations, so well expressed over half-a-century ago by Schaefer (1967) in *The School as a Center of Inquiry*.

For more on individual and collective agency and change in educational practices, see work from Finland on teacher agency (Vähäsantanen, 2015) and teacher educators and change (Hökkä, 2012); from England, Caldwell's (2005) overview of the history of agency and organization change and an analysis of four competing views of agency that he classifies as "rationalist, contextualist, dispersalist, and constructivist discourses"; and from Scotland, teacher agency and curriculum (Priestley, Edwards, Miller, & Priestley, n.d.).

19.1.1.3 Perceived self-efficacy and collective efficacy

Bandura considered self-efficacy "the foundation of human agency. Unless people believe that they can produce desired effects by their actions, they have little incentive to act or to persevere in the face of difficulties" (1999, p. 28). He extends the concept to include "perceived efficacy in collective agency":

> Personal and collective efficacy differ in the unit of agency, but in both forms, efficacy beliefs serve similar functions and operate through similar

processes. People's shared beliefs in their collective efficacy influence the type of futures they seek to achieve through collective action; how well they use their resources; how much effort they put into their group endeavor; their staying power when collective efforts fail to produce quick results or meet forcible opposition; and their vulnerability to the discouragement that can beset those taking on tough problems that are not easily controllable. (Bandura, 1999, p. 34)

Self-efficacy is the belief that you are capable of taking actions that will lead to an outcome that you desire (e.g. the goal of teaching all students to write accurate scientific explanations or ensuring that all teachers are supported in using formative assessment to shape instruction and accelerate student learning). You are confident that if you put forth the effort, you will successfully complete a task or reach a goal – you have a high degree of warranted confidence in accomplishing tasks you accept. So, to what degree do members of the organization, as individuals or as a group, believe that through their actions they can establish, plan how to, and attain specific, desirable goals, that they are confident they have the capacity to solve problems they encounter, and to be efficacious through their efforts?

Contrast these perceptions of efficacy with those of teachers in an elementary school where the professional development team, comprised of teachers and the school principal, and using student data and information from teacher surveys, decide to focus on increasing the use of nonfiction texts (beyond textbooks), especially science and social studies trade books and articles, for use during instruction and for "students choice" time. Along with developing independent learners, their big goals for students are to develop content area knowledge and improve students' informational writing skills. As an additional example at the high school level, teacher leaders, instructional coaches, and a representative from the central office are supporting disciplinary literacy as one route to improving student learning and engagement, and they are providing professional development and resources to support this work.

> "I would use more nonfiction in my classroom, but my students seem to be bored by it. I used the money our district allocated for each teacher to buy nonfiction trade books to support students learning science, but I don't see them reading these new books much; most of the nonfiction they read is still in the textbook."
>
> "I'm using more high-quality nonfiction with my third-grade students. Through my content area read alouds, having students use good informational texts as mentor texts, and increasing the number of well-written nonfiction texts in our classroom collection, my students are learning more content and they are becoming better writers – for most of them, their writing is *so* much better."
>
> "My principal is encouraging everyone to dig into 'disciplinary literacy.' I think it's a good idea, but my students are not motivated by anything I do. Too many other things are going on in their lives, things that are more important to them than my Algebra I class."

"We are working on disciplinary literacy in our school because we believe we can use it to help students see and use applications of our content beyond the classroom. In our PLCs, we are doing some cross-disciplinary work that will help students see how scientists use reading and writing in their fields, how mathematicians communicate their findings, how historians use context, sources, and corroboration as they develop and share historical perspectives. And we're planning units and lessons that have our students using these same disciplinary applications."

Following Bandura's (1993, 1998) work on collective efficacy, and with similar positive effects on student achievement, Goddard, Hoy, and Hoy (2004, p. 4) remind readers that "[f]or schools, perceived collective efficacy refers to the judgment of teachers in a school that the faculty as a whole can organize and execute the courses of action required to have a positive effect on students," and that carefully designed professional development "and action research projects" might well increase efficacy (2000, p. 502). Eells' (2011) more recent "Meta-Analysis of the Relationship between Collective Teacher Efficacy and Student Achievement" yielded positive effect sizes ranging from 0.54 to 0.63, which gives educators and policymakers a strong incentive to design professional development and select change processes that promote collective teacher efficacy.

Useful in the conduct of action research for systemic change is an understanding of the power of perceived collective efficacy and how the work of faculties can both use it for goal attainment and increase it through the nature of their work. For action research to enter the organization, someone – a strong teacher leader, administrator, or superintendent; or some group, such as the professional development team, the instructional coaches and principal, or the science department – must believe that changes are needed and that they can be the catalyst and the professionals who lead the exploration of options and design plans to bring about those changes, creating a better learning and work environment.

19.1.1.4 An imperative for systemic change: tending a healthy sense of collective agency, locus of control, and efficacy

Thus far, the discussion of these constructs has focused on positive outcomes for the larger good or an Aristotelean sense of excellence, but they can also be focused on blocking needed changes. Some resistance to change within an organization can be productive, especially if addressed through the action research process or discourse methods, such as those used with students (e.g. Johnson and Johnson's (2009) constructive controversy, which can lead to changes in perspectives and beliefs). When channeled toward listening, learning, and problem-solving, the increased discourse allows participants to exercise agency through discussion and reasoned argument and can lead to new options for actions and/or better results. However, positive results do not always ensue.

In using action research for systemic change, clear mission statements, the development of collective visions of how learning can be supported for students and faculty members, administrators and teachers willing to articulate the moral purpose of education, school charters that describe governance procedures, and

routines in place for regular civil discourse can all facilitate progress and prevent blockage. While over time and in the course of living mutual respect through action research, the culture of the organization evolves.

See Allen and Glickman (2005) for information on supporting schools in using democratic decision-making processes and action research to support teaching and learning: "Implementing this framework leads schools to create inclusive procedures for gathering and reflecting on information for problem identification, problem solving, and acting collectively (p. 227)." Increasing the voices represented in decisions and ensuring that the central information guiding collective action is transparent can promote individual and collective LOC, agency, and efficacy.

19.1.2   Context-Derived Purposes: National, State, and Local

One of the attributes of action research is that it is context specific to the needs of a local school and/or district, while its inquiry processes protect against narrow, insular perspectives. However, these organizations operate as officially sanctioned institutions in a larger cultural and political environment in which values and social interests vary sharply.

This section may seem conceptually jarring following the constructs that motivate individual and collective action, and thus make action research possible. However, the focus in this chapter is on action research that occurs within educational institutions, which are hierarchical organizations, regulated and governed by multiple entities responsible for promoting, supporting, specifying, inhibiting, or prohibiting what happens within schools and inside classrooms. It is inside these institutions and within the boundaries of their primary purpose that action researchers work. The thesis here is that conducting action research for systemic change must relate to the central mission of the organization, and with recognition of all the regulatory bodies and levels of governance surrounding the classroom and students, there is opportunity and much need for disciplined inquiry by practitioners into the health of the organization and its effects.

At least three entities are governing or regulating what happens within a school or classroom before individuals and groups within the building even begin thinking about changes, and that does not count the US Department of Education, the governor, or the state legislature. So, with policies established by state boards of education and local boards of education, and regulations from state departments of education, where is the space for positive exercise of individual and collective agency? Similarly, where is the space for change generated by action research practitioners?

The good news is that the goals and mission statements of state boards of education and of state departments of education are broad, worthy, and allow for – and sometimes even encourage – the development of schools as learning organizations for all. For example, the New York State Education Department specifies its mission as follows:

> Our mission is to raise the knowledge, skill, and opportunity of all the people in New York. Our vision is to provide leadership for a system that yields the best educated people in the world. (http://www.nysed.gov/about)

What unites us as professionals, along with many policymakers, is our commitment to students, whatever their ages, and the desire to provide the best education conceivable for them. With these motivations in common, educators can conduct action research inside the organization, for purposes of improvement, and focused on issues and goals that they themselves identify.

In summation, using action research to support learning and change at the organizational level requires much more than declarative knowledge of what it is and procedural knowledge of how it works; it requires conditional knowledge of why certain attributes are essential, how they are related, and what conditions support its use in the context of school improvement. Conceptual understanding of the rationale for why action research has such promise for systemic change means grappling with issues of LOC, agency, and efficacy, and designing our work so that both individuals and organizations are creating healthier, more effective learning environments. Recognizing and navigating the legislated, political, and institutional contexts within which educators work and looking for common values that can unite practitioners is simply a necessary part of facilitating organizational change. Our orientations and beliefs, the contexts within which we work, and our use of information affect the plans we make and the actions we are willing to take.

19.2 Living in an Action Research World at the School, District, Regional, and State Levels: Some Examples

Current forms of action research in education have many commonalities – they all use inquiry processes, are conducted by practitioners as researchers and implementers, focus on improvements and/or increased understanding, and occur within or supporting an educational organization. However, there are important differences. One major difference is how many people are involved as action researchers – whether the inquiry is conducted by an individual educator or maybe a teacher and her students, by a small collaborative group, by an entire school, or by a district faculty. Other differences arise from variations in the focus on student learning, in the degree of concern for achieving equity for students, in improving the organization as a learning and problem-solving unit, and in changing relationships among educators and other stakeholders. These contrasts among the approaches are important because they reflect quite different long-term objectives, and in some approaches, quite different conceptions of the workplace. Selecting one approach or type over another – individual, collaborative, or organization-wide action research – does not mean that other types might not be used in the same setting. *The key to selection is what purpose the participants wish their inquiry to serve and what is possible in the current context.*

Willing practitioners can engage in individual action research and collaborative action research focused on improving student learning in almost any school. However, school-wide and organization-wide action research are usually initiated by one or more persons in positions of institutional power or leadership, such as the superintendent, school principal, or a leadership team comprised of

educators and other stakeholders. The opportunity for benefits and change across classrooms is greater along with the costs, resources, time demands, need for training, and need for technical assistance beyond the school site.

The purpose of this section is to provide examples of what action research looks like with different levels of organizational support. The scenarios include several types of action research in which practitioners study student and/or staff learning, use the external knowledge base, add something to their practice, and study its effects on themselves and others. As you read these examples, think about the action research process, about how practitioners are using their current knowledge and the knowledge of others, and about their use of up-close or "small data" (Sahlberg, 2018) as essential in studying the effects of their practice. Notice, also, how action research advocates look for ways to support substantive work from wherever they are in the organization.

19.2.1 Individual Action Research: Learning, Pursuing Goals, Solving Problems

For some individuals, this is just how they work. For some, the impetus for action research may be part of graduate coursework, part of a distance learning network that provides colleagueship and support (e.g. the Action Research Network of the Americas [ARNA], the Collaborative Action Research Network [CARN]), or an idea they gathered from reading and they want to give it a try.

Several years ago, Helena conducted her master's thesis as an action research project on the quantity and quality of student writing in her classes. As part of her background work, she studied Applebee and Langer's publications (2009, 2011) on writing instruction in US secondary schools and replicated some of their questions and methodology as part of her inquiry. This year, she is struggling to help her eleventh graders write stronger, more telling prose and to use their observation skills to strengthen their descriptions. She has engaged them in observation activities to add to the accuracy and specificity of their descriptions of objects, persons, and events. She has had students role-play and rehearse scenes from plays to help them think about and describe both physical and emotional reactions. Students have made videos of events in and out of school, shared clips from them, and discussed how to express actions, reactions, and emotions accurately while pulling their audience into the experience. She and her students have recorded progress using a rubric and identifying excerpts with which they are particularly pleased. As Helena continued to study her students writing and listen to their discussions, she could tell that some of her students who had not been reached before were becoming more observant and detailed in their writing, while some of the better writers in the class were taking more chances as they sought to connect with readers and present their ideas sharply.

As part of her next action research cycle, Helena wants to use some of her students' suggestions about conducting interviews and the possibility of video documentaries. Her department designates "argument writing" as central work for the next semester, so Helena is considering having her students identify issues in the community and conduct an inquiry into them, including the identification and defense of possible actions. She has been pulling ideas about student inquiry

from *Teaching Argument Writing* (Hillocks, 2011) and is trying to talk two of her colleagues, a social studies teacher and a science teacher, into developing an interdisciplinary unit.

In what ways could we better support teachers and administrators like Helena? Systemic change in service of student learning is occurring in Helena's classroom, but it is having little effect on the surrounding educational system. There is advocacy and some support for action research in the district, but minor additions – such as an online volume with brief descriptions of projects and their results – would be useful and possibly lead to more collaboration and synergy. Administrators could also review individual career development plans (or whatever the district uses for individual teacher growth) and coordinate support for teachers with similar goals or questions, leading naturally into collaborative action research. District or school administrators could reach out to local universities to provide courses – on-site or online – and pay tuition fees for those teachers who wish to use action research to solve problems of practice, improve student learning, and/or work to improve teaching and learning.

19.2.2 Collaborative Action Research: Small Groups, PLCs, Students

Depending on the number of persons involved, the purpose of collaborative action research could be focused on problems and changes in a single classroom or on several classrooms within a school or district or across schools and districts. The size of the action research team may be as few as two people, or it may include a grade-level team or PLC working with one or more staff members from a university or other external agency.

For reasons of brevity, the collaborative action research scenario shared is embedded in a school district that uses action research for multiple purposes (see the next section).

19.2.3 School-wide or District-wide Action Research

Organization-wide action research can focus on issues and improvements about anything (e.g. policies on smartphone use in the school, parental involvement, food services, retention of new teachers, how to acquire bike racks for the building). In this discussion, organization-wide action research is connected to the primary mission of schools, thus its purpose is improving the education of students and improving the organization's capacity to provide this education.

There are many implications when choosing action research to build organizational capacity, and three are addressed here. One is the *improvement of the organization as a goal-attaining, problem-solving entity*. Through repeated cycles of action research, the faculty and those supporting the work of the faculty should become better able to work together to attain student learning goals, and to identify problems and solve them. The culture of the school should become strong enough to apprentice new members of the organization to these individual and collective cycles of learning and action. The second implication refers to an *improvement in learning and achievement for all students*. For example, if the faculty focuses on improving students' communication skills, especially in

discussion and writing, the intent is that all students benefit, not just those in the middle of the distribution or those who are compliant. The third implication is the breadth and content of the inquiries themselves. If a faculty or faculties decide to study writing, educators intend the quality of writing to *improve throughout the school, not just in the classrooms of a few faculty members.* Additionally, in an area of common concern or interest, every classroom and every teacher is involved in collective study and regular assessment of effects on students. The instructional actions chosen may vary widely across grade levels and departments or disciplines, but there is a unified effort, hopefully a sense of collective efficacy and an attitude such that by working together, expanding our practice, and engaging our students more fully in studying their writing, we will have major improvements in writing use and quality.

While I use a five-phases framework for inquiries into many issues – e.g. general school problems, assessment issues, or school/community relations – when I work with organizations on accelerating student learning, the framework we use is depicted in Figure 19.1. The School Improvement Components triangle on the left-hand side places action research in context and depicts the building blocks we need to take into account when our goal is to improve student learning and the learning environment. Organizational action research is unlikely to occur or be sustained without addressing these components. The Action Research Matrix on the right-hand side of the figure serves as a guide for structuring collective inquiry and action (Calhoun, 2002, 2004). Finally, the school action plan combines the work and publishes our collective commitments.
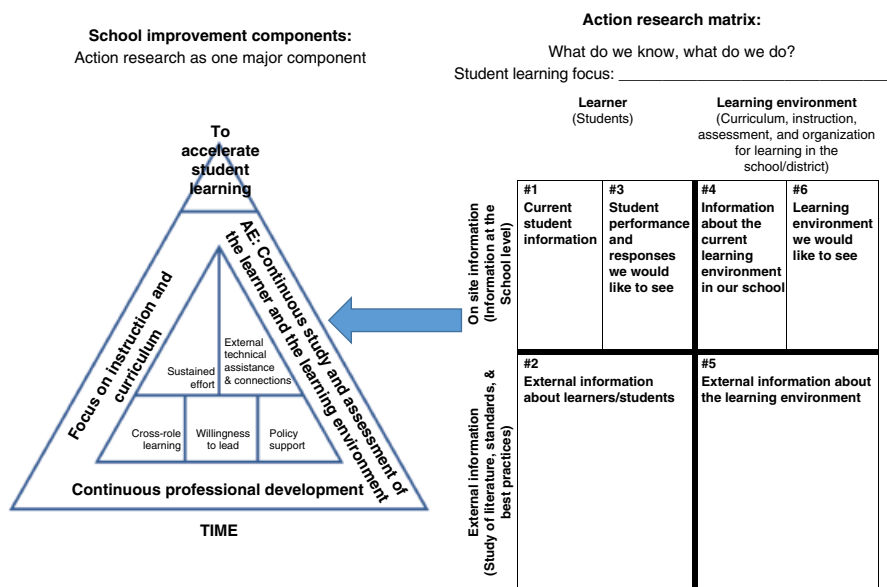
Figure 19.1 The role of action research in the learning organization. (*Source:* Originally developed by E.F. Calhoun, The Phoenix Alliance, 2002).

Your image of components that support collaborative work and organizational change in schools and districts may look different from those in Figure 19.1. You may prefer 4–10 phases to guide action research instead of the actions incorporated into the matrix, which include inquiry phases within each of the six cells. Your action plan may look more like a strategic planning document or much less formal. What matters is that those who wish to use organization-wide action research have planning tools to help them structure their new ways of working together until they become routine.

The next three scenarios show educators working in or with organizations that systematically use and support action research around student and staff learning. Both school- and district-wide action research, as well as individual and collaborative action research, are supported. School teams have been provided with training in how to use action research to study their classrooms and/ or administrative practices and how to study student learning goals and curriculum domains related to the central mission of their school and district.

19.2.3.1   Scenario 1

Marvin is the Director of Instruction in a school district where they are using the picture word inductive model (PWIM; Calhoun, 1999; Joyce, Weil, & Calhoun, 2015) as part of a district initiative to improve student reading. Marvin is facilitating the use of action research to help teachers carefully study student performance, in addition to studying their own learning about literacy and implementation of curriculum and instructional changes. The district utilizes an early release day every Wednesday, providing its educators with two hours each week for collective study and discussion.

Here's what's happening at one grade level across the district. The kindergarten teachers selected the *Emergent Literacy Survey (K-2)* (Pikulski, 2007) to assess phonemic awareness, concepts of print, and beginning reading and writing skills. Three times a year, they also assess student performance in reading real books and their students' level of reading comprehension through responses to questions about what they have read. During each PWIM unit, which lasts about four weeks, the teachers study students' acquisition of sight words. Some teachers assess students' word reading skills weekly; others assess them every two weeks. Some measures of student performance are used in a summative manner, but most are used formatively as a diagnosis to help determine immediate instructional actions.

These kindergarten teachers found that taking the time to assess students' word knowledge as they began the unit and again at the end of the unit allowed them to analyze the word reading strategies their students were using, including sight vocabulary, decoding, using analogies, using common spelling patterns, and using context clues (Ehri, 1999). They also found it was useful to study student gains, not just who read the most words. The mean gain in number of words in students' sight vocabulary in the first unit was 16; as the students continued to analyze word properties inductively and write and draw about their words, the mean gain in the fourth unit was 27 words. Studying specific domains of student performance and their own instructional practice simultaneously was a big change for these kindergarten teachers.

Teachers saw their students become more powerful learners as the year progressed. What may not be as visible in this example is how carefully Marvin, the teachers, and the principals studied literacy, located instruments and developed procedures to support the continuous formative assessment of various dimensions of literacy, used external information and student data regularly to shape instruction and design interventions, and built collective responsibility for the success of all students.

19.2.3.2 Scenario 2

Lisa, who was teaching a fourth- and fifth-grade combination class in Marvin's district, and Erik, the special education teacher, wondered if the special education students in Lisa's classroom would remember the words they studied. They knew that the number of repetitions necessary for sight word acquisition varied by students, and Lisa knew from her weekly assessments of students' word-reading skills that most of her students were putting the PWIM words in their sight vocabulary, but she still wondered if her special needs students had the words in their permanent sight vocabulary. The instructional approach she was using now was quite different from what she had been doing. Marvin encouraged her to use an action research process and see what she discovered.

Lisa and Erik decided to study the number of words her special education students retained after they had finished a series of four units taught between September and November, and then to check long-term word retention again after four months. Of the nine special education students in the class, five read 92% or more of the 182 words central to the units; one read 85%; one read 77%; one read 27%; and one who had read 180 out of 182 words in November was no longer available for testing. They were pleased to share the results with the fourth-grade team and with the School Improvement Team.

19.2.3.3 Scenario 3

Ridgeport Elementary has been participating in a state-department-sponsored literacy initiative that uses action research for school improvement. The faculty identified improving students' reading comprehension and vocabulary as their focus. As part of this effort, all members of the School Facilitation Team (seven teachers, the media specialist, and the principal) have been studying explicit strategy instruction. They know from the faculty's assessment of their use of explanations and mental modeling in teaching reading comprehension and vocabulary building strategies and from their team's study of the external knowledge base (e.g. Duffy, 2014; Pressley & Wharton-McDonald, 2006) there is much to be done.

When the faculty or a grade-level team begins studying a new instructional strategy, the School Facilitation Team asks teachers to keep planning guides on their use of that strategy. These are analyzed to determine frequency of use of the strategy and questions about use and, in this case, the data teachers are using to determine which reading strategies students need work on, the quality of the explanations provided, the quality of the mental modeling, and the quality of the nonfiction prose being shared with students. It is easy for these school-based instructional leaders to tell if some colleagues or grade-level teams are progressing smoothly or

are having difficulty. If there are difficulties, it is easy to determine whether it is in locating quality prose, identifying concepts versus topics, sharing their thinking aloud, providing time for students to share their thinking, integrating the strategy into disciplinary lessons and units, etc. After they organize the data – including lessons from their own classes and lessons the principal has done – team members study the results, work with colleagues, and plan the next professional actions.

When a faculty is focusing on a goal such as improving students' reading comprehension, grade-level groups or PLCs may select different instructional strategies and routines to try as their promising action. When this is the case, a Facilitation Team member, instructional coach, or administrator works with the group to ensure that observations of the strategies occur and videos of the strategy in use, scenarios or lessons, and print or multi-media resources are located for use by the group.

19.2.3.4 Commonalities across these three examples of organizationally supported action research

The collective goal in each of the above scenarios is to accelerate student learning in one or more dimensions of literacy. The chief administrator and representative teachers in each school are providing leadership for the learning and actions being taken. The faculties and grade-level teams are supported in using action research to improve and expand instructional and curricular repertoire in literacy. The actions focus on studying student and staff learning, and each exists within structured initiatives supported by school, district, and/or state organizations.

19.2.4 Regional/State-Supported Action Research

In these efforts, a regional service agency, state department of education, school administrators group, or consortium offers districts and schools an opportunity to participate in school improvement work that includes action research (e.g. as in the example of Ridgeport Elementary School). Sometimes the focus can be any aspect of instruction and curriculum that affects student learning, or sometimes it can be focused specifically on a common need, such as improving student literacy.

In the cases this author is most familiar with, the support from the sponsors included several common elements:

- training in the use of action research processes;
- help in developing representative school leadership teams comprised of teachers and administrators;
- help in designing professional development;
- problem-solving discussions with school and district administrators to find time for collective work; and
- encouraging district administrators to decrease the current number and proliferation of initiatives.

External technical assistance can also be provided. State department staff members, consultants, or university faculty members worked with school leadership

teams on studying student performance data and using multiple data sources in selecting a focus for collective work, in using the external knowledge base as a source for ideas and actions to try, in studying implementation and the effects of selected actions, and in solving issues that occurred during the course of the work. The reader is referred to Joyce and Calhoun (2010, chapter 5) for a description of a state department initiative using organizational action research.

Support from state or regional institutions or consortia is needed and can ameliorate some of the major impediments that school and district personnel face when working to develop learning organizations and improve student achievement across classrooms, schools, and districts.

19.2.5   A Caveat

Sustaining action research as an integral component in the work of the school or district appears to be extremely dependent on administrative leadership. Even when student results have shown significant improvement over several years, new principals and superintendents with different perspectives on school improvement can have more influence on the organization as a unit than the effects of previous work. However, even when administrative support disappears, the residual effects include many professionals who are more knowledgeable and are stronger leaders. Since change in the operation of the organization as a unit was not sustained, some would say organizational action research failed. Some would ask "Was it worth the effort?" Many educators in these settings – thinking of the effects on students and the learning and colleagueship they experienced – would reply with a resounding "Yes! We were and are able to do things we were not able to do before!" Systemic change will continue in these classrooms and departments.

19.3   Supports Needed for Establishing Action Research as a Common Mode for Supporting Student Learning and Desired Changes in Organizations

Think back to the scenarios at the beginning of this chapter and the vision of action research processes and their results in classrooms, schools, school districts, and universities. In every system, people were engaged in continuous improvement, or what I call good basic work that enhances one's sense of agency and shapes the learning environment simultaneously. This work included individuals and/or groups learning, developing awareness of how to learn and responsibility for learning, identifying and working together around shared goals or problems of practice, systematically studying the learning environment and its effects up close, reaching beyond current knowledge and practice, taking actions to improve results, developing individual and collective efficacy, identifying new actions, and continuing the learning cycle. Optimally, action research processes, or change processes with similar attributes, would be used extensively across all levels of education, continuously nurturing

learner-student-citizens and learner-educator-leaders. However, we are a long way from this optimal or ideal situation in most schools and districts.

Looking at the chapters in this *Handbook*, the articles available, the journals and networks supporting action research, and the books available on the topic, action research is making a positive difference in the lives of many students and educators. But how can practitioner-scholars and advocates increase its use for systemic organizational change?

19.3.1 Actions and Ideas that can Increase the use of and Support for Action Research

1) We need more preservice teacher education programs, school administrator and leadership programs, and other graduate advanced degree programs teaching action research as a career-long approach to studying and improving one's professional work and the environment in which it occurs. More than any other group, professors can help us build action research into the educational process and into all educational systems.

One of the major obstacles to using action research for systemic organizational change is the lack of individuals who are knowledgeable and skilled in both action research and systems change in schools and districts. There are also few well-described case studies of school, district, or regional action research in the literature that can provide models for study. Without strong practitioners and advocates at the university level (and in leadership programs at the state and regional levels), few school district teachers or administrators will learn how to conduct and support action research for personal learning and reflection, for individual professional development, for collaborative work in the school, or for school-wide inquiry and action.

2) We need a better method for connecting district and school educators and policymakers with individuals, groups, networks, and consortia that will provide support for conducting action research as a change process within organizations. There is a critical need for knowledgeable external support, while building local capacity.

Various groups external to schools and school districts are currently trying to fill the role of providing human technical assistance for systemic change. Through partnerships and/or networks, they provide support for tackling particular problems, for designing change processes, and for helping schools and districts connect to their communities, universities, and businesses. Examples include the Carnegie Foundation for the Advancement of Teaching and its emphasis on Networked Improvement Communities (Bryk et al., 2013; Russell et al., 2017) and the studies of school districts and partnerships engaging in "continuous (quality) improvement … the act of integrating quality improvement into the daily work of individuals in the system" (Park, Hironaka, Carver, & Nordstrum, 2013). The Strive Partnership and the Strive Together Cradle to Grave Network (https://www.strivetogether.org) is another example.

Partnerships between universities and school districts seeking support for organizational improvement seem to be increasing. Whether taking an improvement science or implementation design approach or both, some common attributes of these approaches include a focus on problems of practice, collaboration between university teams and district- and school-based teams, focus on the district and school context, and the use of "Plan, Do, Study, Act (PDSA) cycles" to provide information about implementation and effects (e.g. Cannata, Cohen-Vogel, & Sorum, 2017). Whether self-identified as networks, partnerships, or consortia, most of these entities offering support and shared expertise have frameworks for gathering data, setting goals, selecting actions, and studying implementation and effects. Examples of these frameworks include the PDSA cycle, Results-Oriented-Cycle of Inquiry (ROCI), and the Data Wise Improvement Process (Bryk et al., 2013). There is much overlap between the work of these groups and action research processes. Much can be learned from their work, and they may be a source of expertise in supporting action research.

Funding sources – from the Carnegie Foundation for the Advancement of Teaching, to the Spencer Foundation, to grants from the Institute of Education Sciences of the US Department of Education – are encouraging these partnerships and networks. Some school districts and states are taking advantage of Title II funds to support partnerships. For example, 10 supervisory unions in Vermont are working with the District Management Group (2017), which uses a continuous improvement framework. The work is primarily funded by Title II funds, along with sponsorship and limited funding from the Vermont Agency of Education. How active are we as action research practitioners in forming partnerships and accessing funds to support the transformation of schools into learning organizations?

3) We need better use of the experiences of others outside our setting and better use of the external knowledge base in education as a source of information.

School and district lead learners can use this information to stimulate inquiry and action. In mining the knowledge base, we need less emphasis on the date of publication. The neglect of lessons from the past – especially research and publications that are more than 10 years old – can limit access to ideas and to the experiences of educators who dealt with many of the same social and organizational problems that exist today.

4) As educators, we need to more carefully design work that tends agency and efficacy, while changing workplace norms.

Collective disciplined inquiry in service of student learning and the evolution of the organization challenges the institutional order and expectations of stakeholders – even educators. It is uncomfortable for an optimist to say, but collective inquiry, including the study of teaching and learning, is an innovation that assaults the norms of most schools and districts. In reality, school-wide action research *collides* with the traditional norms of the culture of schooling. A faculty who chooses the action research route will find that the norms that govern professional interaction will probably need to change radically and that part of the challenge is using the structure of the action research process to generate new cultural norms around teaching and learning.

5) It is crucial to systematically increase the use of action research in school districts – as part of professional development, as part of the operational routines in professional learning communities, as a study process in curriculum development, and as part of leadership development for administrators and teachers.

Many opportunities exist for embedding action research in our daily work. In the short run, it is up us to see these opportunities and to make the work possible, building capacity now and for the future.

19.4   Concluding Remarks – Living Passionately Through Disciplined Inquiry

Action research for systemic change is complex, messy, and often full of surprises. What else could it be, since it is a continuous learning process? Those working to transform organizations seek change processes that provide a balance between the status quo and new directions and between maintaining day-to-day operations and accelerating learning throughout the system – by developing new knowledge-in-action, taming misconceptions, trying new patterns of social interaction, and confronting data that may be threatening to professional identities. They need a change process that supports individual and collective learning, one in which top-down and bottom-up ideas are both valued and inside-outside differences in perspective become information that may or may not lead to adjustments or new directions. Action research is one such process.

Those working to transform organizations seek approaches that can elevate the learning environment for everyone, thus yielding beneficial results for students and evolving healthier norms of interaction. Whether from an individual, small group, school, or district perspective, part of the promise inherent in action research is to build the capacity of individuals and organizations to move beyond current cognitions and practice. Recognized in the past as a powerful tool for simultaneously improving practice and the health of the organization, such is its appeal today.

Lawrence Downey (1965) reminds us: *A school teaches in three ways: by what it teaches, by how it teaches, and by the kind of place it is.* What better educational setting could students have than being in a school where the adults model lifelong learning and collaborative problem-solving, within an informed and responsive culture – one in which trust is built, learning is celebrated, differentiation is valued, unnecessary rigidity is avoided, and valued goals are attained through the exercise of individual and collective agency.

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20

The Promise and Future of Action Research in Education

Bob Dick

Education is mostly for the future. It is to prepare us, now, for subsequent work and life. It is, therefore, pertinent to ask, for what future? In this chapter, I offer reasons to think that the future is inherently unpredictable and increasingly so. We cannot confidently anticipate what it will be like. An important role of education is then to equip each of us to deal with a future that in many respects is unknown and unknowable.

If that is so – and I claim that it is – then the implications for education are substantial. Certain skills and attitudes are likely to be an important component of what education seeks to help people learn. Action research, as usually practiced, has qualities that fit it well for the purpose of helping education achieve that goal. This chapter also explores certain other characteristics that can further enhance action research for this purpose.

To set the scene, compare two educational experiences …

20.1   The Alternate Promises of Education

In 1980, our local school invited parents to an open day. Parents could sit in on an actual class at the school for a morning. Our son, Michael, was then in fifth grade. My partner and I decided to avail ourselves of the opportunity.

The school was regarded as one of the better public schools in Brisbane. In addition, we had heard that Michael's teacher was one of the best teachers at the school. We approached the open day with pleasurable anticipation. Arriving at the classroom on the day, we found the children already seated there, chatting informally. I recalled my own fifth-grade class, in 1949, as being very different. In those days, we had marched into the classroom from the school parade ground, in line, silent and disciplined.

So far, the signs in Michael's classroom were promising. Then everything changed. At 9 a.m., the teacher – by reputation one of the best, you will recall – entered the room. The children immediately quietened, removed everything

from the top of their desks, and sat silently at attention. "Good morning, children," the teacher said to the class, with a warm smile. "Good morning, Miss …," they responded, in unison.

"Mental arithmetic," she announced. She guided them through a 10-item test, which the children then corrected. "Stand up, those who got 10 correct?" A small handful of children stood. "Well done. A point to each of your houses." It appears the class was divided into two "houses." "Those who got 9?" They stood. "8?" They stood. And so on, until the last few children in the class finally stood. A spelling test then followed, repeating the procedure. Each of those who scored 10 earned a point for the respective house.

Again, I compared it to my own fifth-grade experience. Yes, we marched into the classroom. But, within the classroom, a different culture prevailed. Our teacher clearly put effort into keeping us engaged and interested. For some activities, he involved us in helping to decide what we would do. For example, I recall one activity where we planned to write a book on a now-forgotten topic. Collectively, we decided who would write and illustrate each chapter. Other classes weren't like that. We were an island of democracy in a sea of discipline and control.

I don't remember all of the many topics we covered in that class. I'm sure that mental arithmetic and spelling were included, though perhaps in less traditional ways. Tellingly, a few years later, our teacher abandoned classroom work for physical education. There, on the playing fields, he would be less subject to the constraining school culture.

My partner and I returned home from our son Michael's class. As we did so, I reflected on what was being learned in each of the classes – and especially how it was learned. I thought of Marshall McLuhan's dictum that "the medium is the message" (1964, p. 23). If the medium is a disciplined and obedient class, I mused, what is the message? If the medium is competition, student against student and house against house, what is the message? If there are rewards only for the highest achievement, what is the message?

I regard what McLuhan calls the medium as the processes and patterns of behavior: "the way we do things around here." That is a common definition of culture (Schein, 1999, p. 24). When I was in grade 5, part of the process was standing in straight lines, silently, on the parade ground. This was followed by the process of marching, silent and still in line, into the classroom. In Michael's class, the students were given the responsibility of finding their own way into the classroom.

On the entry of their teacher – loved and respected though she was – Michael and his classmates became disciplined and silent. In my grade 5 class, we were expected to share with our teacher some of the responsibility of deciding how we would learn. What message did these routines convey about the relationship between student and student, student and teacher, or student and wider system? Which of these messages promises the most for the future? We'll return to that question after possible and likely futures are examined.

20.2 Which Future?

It is a truism to say that the future is not here yet. How, then, are we to examine it? Taking present trends into account, is forecasting possible? Weather forecasting can provide an example. It is one of the best-developed examples of the forecasting of complex future situations. Unfortunately, developments there offer us no cause for optimism. I ask that we consider the experience of Edward Lorenz, mathematician and meteorologist.

20.2.1 Technological Futures

In the 1960s, Lorenz was studying the simulation of weather conditions on a personal computer. On one occasion, he re-keyed the values from a previous simulation into his computer. He wished to observe them as they developed. Of course, he expected the outcomes to be the same as before. To his surprise, they differed. That isn't how computers are supposed to behave. At first, he suspected a malfunction. Eventually, though, he realized there was a more significant reason. He had re-entered the data to only three decimal places. In the previous weather simulation, the computer had operated internally to six decimal places.

Take a moment to notice how trivial a shift this was. The input variables were changed by less than one thousandth of a unit. I wonder how often meteorologists are able to work with such accuracy. Yet that minute shift was enough, eventually, to change the output entirely. As he reported (Lorenz, 1963, p. 130), "slightly differing initial states can evolve into considerably different states." A later conference paper gave rise to the label now sometimes used to refer to that phenomenon – the butterfly effect. There, he titled his paper, more colorfully: "Does the flap of a butterfly's wings in Brazil set off a tornado in Texas?" (Lorenz, 1974).

Of course, a butterfly, no matter how intelligent and purposeful, cannot deliberately initiate tornados. Rather, seemingly trivial initial events can bring about very different and unpredictable outcomes. The more richly interconnected a system is, the more subject it is to such effects. The less predictable the future then becomes. Futurists, people who study future possibilities, agree. James Dator (1996, p. 107) says bluntly that "[t]he future is not predictable." In an overview of futures studies, Jennifer Gidley (2017) concludes that there are multiple possible futures. Yes, there are past and current trends that can be studied. They cannot identify one certain future, however. What they can do is to help to indicate possibilities.

Since 1997, the Millennium Project (Glenn & Gordon, 1997) has been doing so. In 2017, researchers in 63 different "nodes" scattered around the world did what they do each year. They reported on the trends that they could discern. The Millennium Project team collated and interpreted the results to indicate the present global state of play. In the published annual reports, trends are reported in relation to 15 global challenges. Glenn and his colleagues believe that there are many challenges that are serious enough to demand attention.

The challenges include global warming, population growth, authoritarian regimes, inequality, new health threats, and many more. Several of the challenges are relevant here, and one in particular (Glenn, Florescu, & the Millennium Project team, 2017, p. 30):

> 9. How can education and learning make humanity more intelligent, knowledgeable, and wise enough to address its global challenges?

Indeed. I'll come to that. In assessing the overall trend across all challenges, the same report (2017, p. 5) says:

> Although we are winning more than losing, where we are losing is very serious. "Business as usual" trend projections for water, food, unemployment, terrorism, organized crime, and pollution could create complex future disasters. Humanity has the means to avoid these disasters and build a great future, but too many of the necessary decisions and cultural changes to improve our prospects are not being made.

Much other futures work anticipates a continuing escalation in the rate and extent of change. Among the many trends driving the change, two in particular are often identified: technology and globalization. Each, by itself, exerts an important influence. Their combined influence is even greater.

Moore's Law (Moore, 1965) illustrates the strength of technology as a driver of change. Gordon Moore observed that the number of components on an integrated circuit doubled regularly. This adds to computer processing speeds, which typically double every 18 months. Over the years, there have been regular predictions that the exponential growth will approach a ceiling and will slow. Track, Forbes, and Strawn (2017) list some recent examples of such predictions. Yet, half a century later, this exponential improvement in computer circuitry and processing power has been seen to continue.

There are reasons to believe that there are physical limits to the miniaturization of computer chip components that achieve the increased processing power. Even so, other developments in computing may allow the exponential growth to persist (Theis & Wong, 2017). So far, the growth has been enormous – in half a century, an end result eight billion times greater than the initial value. You have probably benefited. You possibly have a smartphone in your handbag or pocket. It is likely that, despite its compact size, it has substantially more processing power than a large mainframe state-of-the-art computer would have had just 50 years ago.

One of the outcomes occasioned by the increases in computing power is the growth in artificial intelligence.

20.2.2 Artificial Intelligence

As analyzed by Lee et al. (2016) and Keller and Perez (2016), the Go tournament in March 2016 between the Go Master Lee Sedol and the artificial intelligence AlphaGo is relevant. (Go is a board game considerably more complex than

chess.) At the time, most commentators predicted that Lee would win. An artificial intelligence victory would not occur for at least a decade, they believed. Tim O'Reilly (2017) admits that he thought an artificial intelligence victory at Go was two decades away. In reality, Lee Sedol was defeated, four games to one.

There are three important points to be made. First, as noted, the victory caught most informed commentators unaware. In a changeable world, surprises happen. Second, the programmers who prepared AlphaGo were often surprised by its moves. AlphaGo doesn't play the game as humans do. Third, and most important, AlphaGo wasn't programmed to play Go. It was programmed to *learn to play* Go, helped by some high-level examples of human play.

AlphaGo's supremacy was short-lived. By late 2017, it had been defeated. Its successor, AlphaGo Zero, won all 100 games the two artificial intelligences played. AlphaGo Zero's creators used a different approach. Once built, AlphaGo Zero learned Go from scratch. It had no human input apart from the rules of Go. From the beginning, it learned by generating and evaluating moves that were at first random. In addition, it learned to play Go using far less computing power than its predecessor. Compared to AlphaGo, it took a fraction of the time to reach its present high level of play. Satinder Singh (2017, p. 336), a computer scientist at the University of Michigan, described the advantage of AlphaGo Zero beyond AlphaGo as "roughly an order of magnitude."

It is worth repeating that the initial input to AlphaGo Zero consisted of the rules of Go. AlphaGo Zero learned all of its moves and strategies entirely by trial and error. I'm writing this in November 2017. By the time you read it, there may have been further unexpected developments. Or perhaps not. Evolution tends to proceed in fits and starts (Wollin, 1999). There may be times of relative stability punctuated by other times of more rapid and less predictable change.

Some authors believe that artificial intelligence will exceed human intelligence within the present half-century. They call this landmark "the singularity" – a singularity is a point beyond which it is not possible to see.

20.2.3   The Singularity

Prominent among those forecasting a singularity is Ray Kurzweil. In his 2005 book, *The Singularity is Near*, he predicts that the singularity will occur by 2045. By then, humans and computers would have merged, he believes, amplifying human abilities. On this view, the future beyond the singularity is not merely unpredictable. It will be so different to the present that trying to anticipate what it might be like becomes impossible, and therefore pointless.

Not everyone is as optimistic as Kurzweil. Dirk Helbing (2015) recounts that such people as Elon Musk, Bill Gates, and Stephen Hawking have expressed strong cautions. If development continues, it does seem likely that at some time in the future, the artificial intelligences will become more intelligent than humans. The fear is that they may then initiate not a merger, but a takeover. For me the important questions are, who will control the artificial intelligences, and for what purpose?

Whoever is more accurate, the growth in computing power from year to year is currently exponential. In general, each year the increase is greater than in the

previous year. The development of computing has enabled many other techno-logical advances, including the internet. That, in turn, enables globalization, another very important driver of the present and future. In many respects, the world has become the "global village" that Marshall McLuhan (McLuhan & Fiore, 1974) wrote about.

20.2.4   Globalization

Large multinational corporations have been able to take advantage of globaliza-tion to increase their influence. Their use of the internet and of international flights has enabled their managers to control large and dispersed organizations. They can buy and sell wherever it is most profitable for them to do so. National governments, on the other hand, are confined within the boundaries of where they have sovereignty. People are a little freer than governments to move, but most tend not to do so.

Many large corporations are multinational. There is no multinational govern-ment to keep them in check. The United Nations organization could play that role. Instead, it largely serves the corporations. Joseph Stiglitz (2014) has exam-ined this phenomenon from a US perspective. He points out that globalization has been handled in ways that benefit the multinationals, not US citizens. Nancy MacLean (2017) has documented how the rich have used their wealth to influ-ence both policy and citizen perceptions. According to MacLean, some of them have done this deliberately and consciously. Even a level playing field initially favors the rich and powerful. They can then use their wealth and power to tilt the field for their own further benefit.

The Millennium Project reports a similar and wider issue (Glenn et al., 2017, p. 6):

> Even though the most significant of the world's challenges and solutions are global in nature, global foresight and global-scale decisionmaking sys-tems are rarely used. Global governance systems are not keeping up with growing global interdependence.

The actions of multinational corporations, and their consequences, have been noticed. Some authors, like Arthur Stein (2016), have begun to ask if globaliza-tion and democracy can co-exist. Earlier, others such as Austin and Kumar (1998), had begun to question the relationship between globalization and national sovereignty. In much of the West, the inequality in earnings and wealth is hard to ignore. Thomas Piketty (2014) studied carefully the disparity between the wealthy and others. His analyses suggested that the disparity was more likely to increase further.

Half a decade before Piketty's book appeared, Richard Wilkinson and Kate Pickett (2009) reviewed information demonstrating that in more equal societies, poor and rich tend to be happier and healthier. There have been citizen-based reactions against authoritarian regimes, inequality, and injustice in many parts of the world. In the West, the Occupy movement gained headlines. Apart from some initial publicity, however, it achieved little real purchase and the triggering grievances remain largely unresolved. The Middle East has had its share of

popular protests, with mixed success. Similar protests have also occurred in southern Europe, in reaction against the austerity imposed by the European Central Bank, and Latin America. Sitrin and Azzellini (2014) have documented some of the relevant history. They believe that, in many instances, the protesters were motivated by a belief that representative democracy denies people an adequate voice. That motivation presumably still exists. There have been subsequent protests in Asia. Authors such as Bolton (2017) advocate more grassroots organizing and protests as a response to the way in which elites are seen to have usurped resources and power.

Let's pause to take stock. Considering only the effects of technology and globalization, possible future developments seem enormously varied. That is without taking into account some other important and large current trends such as urbanization and demographics (Dobbs, Manyika, & Woetzel, 2016). We've barely touched on the economy and the environment (O'Neill et al., 2017), important though they are. These other trends seem likely to amplify any uncertainty about the future driven by technology and globalization.

Earlier, I mentioned Ray Kurzweil's book, *The Singularity is Near*. My own guess is that there is a singularity. I don't think it will happen overnight, or even over a couple of months or years. I don't claim it as more than an educated guess, though I'm pleased that Magee and Devezas (2011) reached a similar conclusion. I think the singularity will be drawn out, perhaps over decades. I think it has already begun. Perhaps a better name for it is a liminal period, a boundary or transition zone between two different phases of history.

I suspect that there is more to it than our future relationship with artificial intelligence. One piece is that the relationship between the rich and the rest of us is increasingly fractious. Increasing awareness of growing inequality is a key driver of dissatisfaction. The economic crisis of 2008 was an important trigger. Yet another piece is that we have created many enormous centrally controlled organizations, both private and public. They, and the structures that characterize them, no longer work as well as they used to.

There has been evidence since the 1960s that a more turbulent environment is unfriendly to traditional corporate structures. Comparing industries, Burns and Stalker wrote their book on *The Management of Innovation* in 1961. They reported that "mechanistic" structures could thrive in stable environments. More changeable environments favored more "organic" structures. Other research from the same period supported these conclusions. Joan Woodward (1965) found much the same, comparing different organizations within the manufacturing industry in England. A couple of years later, Paul Lawrence and Jay Lorsch (1967) reported a similar affect within an organization. Different organizational functions had different structures, depending on the stability they faced. Mechanistic organizations were sometimes in trouble half a century ago. We still have surprisingly few successful examples of alternative structures.

Even taking into account only the trends in globalization and technology, we can probably expect a "vuca" future: volatility, uncertainty, complexity, and ambiguity. That concept originated in military documents, for example Arnold (1991). Its implications for defense force leadership have been explored for several decades, for instance by Whiteman (1998). Vuca has since become common in

other leadership literatures. Carolyn Shields (2012), for example, draws on it to define the desired qualities for educational leaders. I believe we can conclude that the anticipated future is not only hard (and perhaps impossible) to predict, but is becoming more so. In considering only technology and globalization, I understate the issue. If education is to prepare us for such an unpredictable future, the difficulty it faces is enormous. I hope the present chapter demonstrates that, by itself, leadership is not enough. Action research also has a contribution to make.

20.3   Action Research

Reason and Bradbury (2008, p. 1) described action research as "not so much a *methodology* as an *orientation to inquiry*" (original emphasis). An important part of that orientation is that action research, as its name implies, is action-oriented. It seeks to improve situations. It is also participatory. It strives to involve those affected by the research as equal partners in the research. Action researchers hold to these values of action and participation and seek to fulfill them in their practice.

An "orientation," as Reason and Bradbury label it, counts for little until its values are realized in action. Most action research also displays certain features that enable it to do so. To be practically relevant and responsive to the situation, it uses an iterative process of trial and error. Some of it is applied at the level of small groups. As well, individual practitioners use it to improve their own practice. It is not uncommon in schools, or other organizations and communities. There has been some use at whole-industry level.

There are many varieties of action research – according to Dawn Chandler and Bill Torbert (2003), there are "27 flavors." The flavor of the action research that I mostly use is not all that different to the mainstream. It embodies the values of action and equality. Its iterative cycle of action and reflection works its way to good outcomes for all through a process of trial and error, and gradual improvement. There are differences, though not to the spirit of action research. I deliberately apply the action-reflection cycle at many different time scales. Action learning processes are integrated with the action research. I borrow processes from wherever I can, or invent them, in the service of good outcomes.

To demonstrate what can be achieved, I draw on my experience as a university academic in the example below.

20.3.1   Participation and Action at University

For 21 years at the University of Queensland, I coordinated many classes, including a fourth-year class within an undergraduate program in psychology. The course, PY411 Advanced Social Consultancy, constituted one-third of an honors year. The class met for a full day each week of semester, for two semesters. That allowed us the luxury of about 200 hours of class contact time per course. I'll refer to it by its customary shorthand, PY411. I'll use it to illustrate some aspects

of the promise and future of action research, for at least this example of education. I think it will become apparent that it has relevance to wider issues, too.

Initially, I attempted to involve class members in course design from the first week of class. The result was adequate, though less effective than I had hoped. Perhaps I should have expected this. Trevor Williams (1975) has reported somewhat similar experiences. At seminars on classroom democracy that I conducted in the mid-1980s, some educators said to me that they attempted to introduce democratic processes into their classes too. Faced with a lack of initial success, many of them abandoned their attempts. They reverted to lectures.

Instead, I persevered. I embarked on several years of experimentation, using trial and error to discover what was effective. (Trevor Williams persevered too. When he and I encountered each other at a conference some years later, he related that he too had eventually been successful.) Rather than take you through the early years of experimentation, I describe below how the class was conducted when it had become effective. I can report with some confidence that it was an effective course. Without any involvement from me, Deborah Johnston (1984) evaluated the entire University of Queensland fourth-year psychology program. She surveyed graduates who one, three, or five years earlier had completed their fourth-year one. Those who had been enrolled in PY411 reported on it very favorably.

My initial motivation was to offer a course that would equip class members with skills and understanding that would serve them well in work and life. I knew that Australian universities graduated more qualified psychologists each year than there were vacancies for psychologists. It seemed better, then, that the focus was not overly narrow. I also knew that if the graduates acquired good interpersonal skills, in addition to their psychological understanding, there would be employment for them.

As I have said, the outcomes from my first attempt at participatory class design were somewhat pedestrian. This engendered a second intent. How might I involve people in designing the class in ways that would give better outcomes? Were there preconditions that would help and, if so, how might I create them? To anticipate the conclusion, I found that leadership was implicated. However, it was not leadership as it is generally understood.

By the time of Deborah Johnston's evaluation, the class had settled into a format that worked satisfyingly. It was structured as a course where action research provided continuous evaluation and improvement. From year to year, the course improved, mostly through changes consisting of fine tuning. However, if you were to compare the class of 1978 (my fifth year) to that of 1994, the differences would be substantial. The description that follows applies to the later years. I haven't tried to be encyclopedic. I limit the description to course aspects that are relevant to the topic of this chapter.

For the first four weeks, a colleague and I facilitated the class sessions. The colleague was someone, usually a postgraduate, allotted to me as class tutor. We worked together, however, as partners. I provided continuity so that improvements were not lost from year to year. Most of the tutors joined the class for one or two years. Without exception, all of them contributed enthusiastically. Almost all of them introduced innovations to the class.

The activities we facilitated in the early weeks had two main goals. One was to prepare class members for their role in week 5, when they helped to design the course. The other was to create a sense of community in the class based on quality relationships in small groups, and generally. There were many other activities. Experienced (and diverse) practitioners visited us, describing to the class what professional practice was like. To help class members relate their later design decisions to their life goals, I facilitated a life and career planning activity. There were activities, usually experiential, to introduce some of the foundational concepts about community and organizational change.

I also facilitated an "experiential workshop on experiential workshops." Based on a modification of David Kolb's experiential learning cycle (Kolb, 1984), its main purpose was to demonstrate, experientially, the nature of experiential learning. Participants experienced the Kolb cycle and constructed an explicit understanding of it from their encounter. I chose the Kolb cycle because it supports the design of engaging learning experiences. It integrates action and understanding, as action research does. Though using different labels, it and action research use what is essentially the same cyclical process.

Several other early activities took place outside scheduled class times. Two are relevant to this chapter, both arising from class suggestions. They were so helpful and popular that they were continued. In between the first and second week of class, I held a party at my home. Participants from both the current and the previous year's classes attended. I facilitated introductions. The tutor and I then usually left so that the class members could talk freely. I assumed that the views of previous class members might be regarded less skeptically than mine sometimes were. Those present were able to discuss what the class was really like and how to gain the most from it.

For the second activity, the class members, the tutor, and I went away for a weekend together, usually under canvas. Among other goals, this was to enable class members to experience each other as complex human beings, not just as "students." It was typically a mix of work, play, and leisure. The "work" component was partly so that people would value it enough to attend.

By the fifth week, the class was cohesive and enthusiastic, and ready to take more control of their situation. I facilitated a whole-day planning activity. By day's end, we had scheduled the rest of first semester. First, we identified what course content was most relevant for class members, with the constraint that all content be related to the class topic of social consultancy. Second, we chose the type of learning activities we wished to experience. Finally, we negotiated roles – theirs and ours.

From that point on, most classes consisted of experiential workshops. Almost all were designed, facilitated, and evaluated by small groups of class members. Most small groups selected their workshop topic from a list compiled by the class as a whole during the fifth week. The remaining class members were the participants. Design of second semester was left until the first week of that semester. Class members also conducted field projects, off campus, in small groups. For example, they might offer to conduct a diagnosis for a small organization, or run a workshop, or something similar.

I hope you now have a sense of the overall shape of the class. (There is a more detailed description on my website: www.aral.com.au). Let me describe now some of the ways in which action research was integrated into the fabric of the class.

Occasionally during each semester, we set aside some time to review what was working and what wasn't. In addition, in the final week of first semester, we conducted a detailed evaluation of the semester. The results of this fed into the design of second semester. For the final class of the year in late October or early November, we met off-campus to evaluate – and to celebrate – the entire year. As the last step of that evaluation, the class members compiled two lists of suggestions. One was to the next class, about how they might gain the most learning and enjoyment from the course. The other list, addressed to me, consisted of suggestions about what I might do differently the following year. In due course, I communicated both lists to the following year's class.

Most aspects of the class were negotiable. However, I had two requirements that I would have abandoned reluctantly, and only for good reason. (I don't recall that I ever had to do so.) One was that every piece of work done as part of the course included at least a one-page evaluation by the person or group doing it. This evaluation indicated what aspects of the work the person or group believed were most effectively done, and which offered the most opportunity for improvement. The other was that to encourage reflection, class members accompanied every piece of work with a second one-page statement of what the person or group learned from the work. This applied to all activities – assignments, the field project, the experiential workshops, and everything else.

To explain the rationale for the course design, I draw on the work of Edgar Schein. Schein and I were staff members on a 10-day workshop on personal and organizational development in 1980, when Schein visited Australia. He identified what he regarded as three key categories of management skills. At the time, he called them technical, interpersonal, and emotional skills, the latter in some respects anticipating Goleman's (1995) later work on emotional intelligence.

20.3.2 Emotional Skills

I haven't been able to find much relevant published work by Schein on the emotional skills. There is a mention in his Career anchors work that can function as a brief summary (Schein, 1990, p. 6):

> You will have learned that to succeed as a general manager you will need some combination of high motivation, skills in analyzing and synthesizing information, interpersonal skills, and emotional skills in the sense of being able to make tough decisions day after day without becoming debilitated by them.

In that quote, the technical skills are the "skills in analyzing and synthesizing information." When we worked together in 1980, Schein explained that technical and interpersonal skills were teachable. He doubted that emotional skills were. Tentatively, I held a different view.

Schein agreed that managers learned technical and interpersonal skills primarily by using them. That made sense to me. We learn to ride a bicycle by riding a bicycle. It seemed to me that the same logic could be applied to emotional skills – that we develop emotional skills by exercising them. It was my perception that the class, still groping week by week toward better outcomes, did in fact help class members to develop emotional skills. They were involved in responsibility for the class, and for their contributions to it. They designed and facilitated class activities that some practitioners would find challenging. They made decisions that carried real consequences. By participating in the class, they made "tough decisions day after day without becoming debilitated by them."

This gave me a new perspective on the class and on the preconditions for its effectiveness. Schein was interested in the personal motivations and qualities that endowed leaders with emotional skills. My interest was more in the nature of the context and environment that elicited and encouraged collective leadership. At the time, I described the preconditions as "arousal without anxiety." Challenge generated arousal. Support, from class colleagues, the tutor, and me, allowed the arousal to be enjoyable rather than anxiety-provoking. I thought that sufficient understanding and support from colleagues would be enjoyable, thus helping to secure involvement and ownership. Enjoyment lessens anxiety, I assumed.

Since then, I have increased my understanding through my use of action learning in project teams within change management programs. From that experience, I now describe the preconditions as being the achievement of an appropriate balance between challenge, autonomy, and support. A worthwhile and complex project provides the challenge. The action learning team is given responsibility and relative autonomy. Support is provided both by the organization and by good relationships within the team. High-quality relationships within the team allow the team to manage greater challenge and responsibility without anxiety.

There is also a fourth component – good feedback. The preconditions of challenge, autonomy, and support are first attained. Accurate and immediate feedback on outcomes then helps to sustain the initial momentum. In the class setting, I wanted to incorporate the feedback in the work. My aim was to help class members realize that seeking feedback and using it were integral and valuable parts of all work. Therefore, anyone who submitted a piece of work two weeks before it was due received it back, with detailed feedback, within one week. Because they could make use of the feedback to improve their work, class members paid more than a usual amount of attention to the feedback.

I regard action research and action learning, despite their different origins, as closely related processes. Increasingly, so do other authors, including Ortrun Zuber-Skerritt (Zuber-Skerritt, 2010; Zuber-Skerritt & Passfield, 2016). Other processes can be incorporated within action research programs. While I was an academic, I was also involved in community and organizational change programs outside the university. The two endeavors, academic and consulting, enriched each other. The techniques and processes I learned through trial and error in the classes, I used in the field. In turn, my field experience informed my classroom work. Under the action research umbrella, I was able to make use of the processes I developed or used elsewhere.

You will note that the PY411 class exhibits the characteristics I mentioned earlier. Activities were action-oriented, intended to equip class members with the skills and understanding applicable in their work and life. Further, they applied what they had learned within the classroom by designing and facilitating experiential workshops. They worked together in collaborative teams. They were involved in practical off-campus experience. The classes were participatory, involving class members in the design, facilitation, and evaluation of PY411.

Processes of informed trial and error were important. In exercising my own responsibilities within the class, I followed action research cycles that were applied at many scales, ranging from the overall course to my moment-by-moment facilitation of the segments that I offered. I also drew on my experiences elsewhere in community and organizational change for some of the processes and activities I used.

At this point, you may be thinking that this was a university class. Participants in PY411 were university students in their early 20s and later. To have reached fourth year successfully, it can be assumed that they were motivated and intelligent. You may be wondering if similar processes can be applied to the more diverse classes in primary and secondary education. There are examples that show that they can. I describe two of them below – a Quaker school in the Netherlands, and the education system in Finland.

20.3.3 The Werkplaats

The next example I will use is the Werkplaats Kindergemeenschap, the Children's Community Workplace, a school in Bilthoven, Holland. It didn't use action research. Or, more accurately, as far as I can tell, it didn't label what it did as action research. However, it was action oriented. It did use trial and error, continually experimenting to improve its functioning. It did involve the students directly and deeply in activities. It demonstrates that, given enough autonomy, challenge, and support, schoolchildren can rise to the occasion.

I depend here on a brief account of the school values given by Kees Boeke (1945), the founder of the school, and a book written by Wyatt Rawson (1956). Rawson visited the school often, talked to teachers and pupils, and observed how the school functioned. In the introduction to his book, he describes the Werkplaats as follows (1956, p. 9):

> [T]here are some experimental schools that possess a peculiar significance today. Of these, the Children's Workshop Community … is one. This is because … it has successfully surmounted certain of the difficulties we encounter when we attempt to put into practice the ideals of freedom and democracy, equality and brotherhood, in which we profess to believe. For it has encouraged spontaneity and freedom, secured order without appealing to force, and maintained a sense of equality and brotherhood among children varying widely in age, social background and intellectual ability.

From the beginning, in its procedures, the Werkplaats embodied its four values of cooperation, equivalence, engagement, and sustainability (Boeke, 1945).

It began modestly in 1926, as family home-schooling for the four Boeke children by the Quaker educationist Kees Boeke. In Quaker style, decisions were made at family meetings, at which all family members had equal voice, activating the equivalence principle. This continued when other pupils from nearby homes joined the classes. As the home-schooling class grew, the equality in decision-making persisted. It still does for the hundreds of pupils now enrolled. Within each school, primary and secondary, all school members meet regularly in a Ronde, a forum, to make decisions. Everyone – teaching staff, ancillary staff, and pupils – takes part. By the time Rawson published his book, there were 850 pupils.

Here is just one of the many examples Rawson gives of pupils taking responsibility, with good results. It illustrates the maturity – the emotional skills – that the pupils had developed.

From time to time, order can break down. Such a breakdown occurred soon after the war, while Kees Boeke was overseas. Some of the children became very unruly. The adults called a Ronde and insisted that behavior improve. Instead, it became worse. In desperation, the teaching staff decided to walk out, which they did. This was Wednesday.

On becoming aware that the teachers had left, one of the pupils called a meeting. She asked for an account of why the teachers had left. When it was explained, pupils not involved in the misbehavior were aghast at the extent of some of the rudeness and disorderly conduct. They decided that all of them, acting collectively, would develop rules of behavior. Any miscreants who then broke the rules would be asked to leave.

Also, by collective decision, on the Thursday, the more senior pupils ran the classes. They also contacted the teachers, asking them not to return until Saturday. The senior pupils would conduct the classes in the interim. The school again became productive, and good behavior was re-established. The good behavior persisted after the teachers returned.

The Werkplaats was one school. It began modestly, on a small scale, and grew from there. It had the advantage that, at its beginning, those involved were already practiced in the Quaker principles of collaboration. It can be easier to grow a new initiative from the beginning than to change an existing situation. The next example I wish to draw on is the whole education system in Finland. It involves the transformation of a large existing system.

20.3.4   Education in Finland

Except as noted otherwise, I take this example from Pasi Sahlberg's (2015a) account of education in Finland. It demonstrates that the principles illustrated above can apply at larger scales. Reform of the Finnish education system began about three decades ago. Though Finland does perform well at international tests, that was not the intention of the reform. The aim was to improve educational outcomes for the students, especially those who would otherwise perform badly. That aim has been achieved. On measures of equity between schools, Finland does better than other nations. It also does reasonably well on equity within schools, and on performance generally.

The Finnish National Board of Education has a strong commitment to planning for the future. Airaksinen, Halinen, and Linturi (2017) describe its use of Delphi, a forecasting method that combines different views from diverse experts, to plan ahead. The purpose is to anticipate future requirements so that the education system can remain relevant to present and future requirements.

In the present system in Finland, there is an emphasis on quality of teachers. All Finnish teachers have at least Master's qualifications. Teachers are reasonably well paid, and well respected within the school system and in the community. As there are many applicants for every vacancy, only the best teachers are selected.

The system is characterized by a combination of democratic attitudes and high aspirations. Within the constraints of an overall system, educational districts have autonomy to decide how to implement the national curriculum. The same autonomy is extended to schools and to individual teachers. There is an expectation that the most resources will be devoted to pupils who are most needy. Early intervention is encouraged. Compared to most education systems, in Finland more resources are devoted in the early school years to identifying and remediating learning impairments. Teachers cooperate to help each other improve outcomes for all students. Trial and error is used, as necessary, until the desired outcomes are reached.

It is unfortunate that recent austerity has eroded some of the support for the most needy students just as their numbers are increasing. The result has been some fall-off in measures of equity. It is to be hoped that the growing and widespread distaste for austerity identified by authors such as Simon Tormey (2015) may restore Finland's educational fortunes.

In contrast to Finland, many education systems standardize a national curriculum, as in the United States, as Yeh (2015) has explained. Government education bodies may also standardize the way in which the curriculum elements are to be taught. In Finland, special efforts are made to ensure that each learner is treated as an individual. Learning activities and approaches are tailored to the learner's particular needs and interests.

The same democratic approach is exhibited by a recent central decision to introduce phenomenon-based learning (PBL) in all Finnish schools (Sahlberg, 2015b). The Finnish educational authorities have announced a new National Curriculum Framework, in operation since August 2016 (Finnish National Agency for Education, 2016). Finnish schools will move more of their curriculum from content-based class sessions to an approach that instead focuses on realistic and broader issues. Multiple content areas will be incorporated and integrated when they are relevant to the issue. (For more detail on PBL, see, e.g. Moilanen, 2015.) The formal requirement is that each school will devote at least one segment of the school year to PBL. Each school makes its own choices about how and to what extent to do so.

I find it interesting that the reform has been misreported in the mass media. The actual reform differs in three important ways from most of the popular reports. Contrary to many reports, such as that by Garner (2015), only some of the school year must be devoted to the use of PBL. Also, PBL isn't as new as many of the popular reports imply – some schools have been experimenting with it since the 1980s. Importantly, students must be directly involved. They are to

have a part both in the planning and in assessing what they have learned (Sahlberg, 2015b).

Many national education systems are following a different path in which action research is less likely to play a prominent role. What does that say about the future of action research in education?

20.4   The Future of Action Research in Education

The Western world has observed the high performance of Asian nations on international tests of student performance. It has noted the emphasis on dedicated application by the students to learning, and the disciplined approach. Some national education systems have responded by moving to adopt elements of the Asian approach. The discussion above suggests that this may be misguided. Just as bureaucratic structures are beginning to fail, the more disciplined approach to schooling may not prepare us well for an uncertain future.

Interestingly, as Western schools move eastward, so to speak, there is a growing view in parts of Asia that the future demands something different. There is some realization that the discipline that helped Asian nations develop to their present level may not equip them well for the future. A more learner-centered approach is sometimes being recommended (Lee, Hung, & Teh, 2014). I have heard from colleagues in Singapore that, for similar reasons, action research is being encouraged within some school systems there. In other words, while the West is moving east in its education, some Asian nations are moving westward.

Beyond early schooling, there has been a substantial literature on adult education. The assumption has been that adults require different approaches to learning. Authors such as Malcolm Knowles (1975, Knowles, Holton, & Swanson, 2005) and Stephen Brookfield (2010) among many others have been influential. A recent move toward even more learner control has been evident in some literature. The development of other strategies of learner-directed learning (or "heutagogy") by practitioner-academics such as Stewart Hase (2013) provides a further example. The experience of Finland and the Werkplaats suggests to me that it is unnecessary to limit self-direction to adults.

In an extensive review of the self-directed learning literature, Bjork, Dunlosky, and Kornell draw some lessons that resonate. They say (2013, p. 438):

> Our complex and rapidly changing world increasingly requires self-initiated and self-managed learning, not simply during the years associated with formal schooling, but across the lifespan.

This may not happen without being initiated in some way. In their conclusions, they continue (2013, p. 438):

> [R]esearch on learning, memory, and metacognitive processes has demonstrated that learners are prone to intuitions and beliefs about learning that can impair, rather than enhance, their effectiveness as learners.

The promise of action research for education resides in its inherent qualities. Its flexibility enables it to be responsive to the reality of a situation. It, therefore, offers a way of dealing with the unpredictable. Through direct involvement of participants, it generates commitment from those best placed to act. The promise of education is that it acts at many scales, potentially from individual to nation and beyond.

As I discovered in my university classes and my facilitation of action learning, sometimes learning must be catalyzed. There are sometimes preconditions to be met. The environment and culture have to be right. The prior negotiation of expectations can be important. The creation of a supportive learning community helps to sustain the enthusiasm and therefore the learning. This is leadership, but of a very different style.

Drawing together the elements of this chapter, I believe some conclusions about the future and about the potential contribution of education are warranted. The likelihood is that the future will become more turbulent and unpredictable. Education at all levels can then best contribute by helping people prepare for the ferment and uncertainty. Qualities such as resilience and curiosity seem relevant. The skills of collaboration, decision-making, and what Schein labeled emotional skills are also pertinent. The more learner-centered approaches seem to me to offer the best prospect.

Action research is well equipped to assist in creating and nurturing the environment in which this can occur. In orientation, it is participant-centered and action-focused. Through its use of informed trial and error, it functions well when a way forward is unclear and has to be discovered bit by bit. Its cycles can be nested (List, 2006), allowing it to be applied at multiple scales from moment-by-moment to longer periods. This amplifies its flexibility and responsiveness.

As well, the cycles of combined action and reflection resemble other cycles. The action research cycle resembles those of experiential learning (Kolb, 1984) and continuous improvement (Coughlan, Harbison, Dromgoole, & Duff, 2001). Experiential learning integrates skills and understanding. Continuous improvement eventually leads to higher quality, whatever the starting point. These are valuable features of a future classroom.

By functioning as an umbrella process or meta-methodology (Attwater, 2014), action research can allow classroom work to incorporate processes and activities from other fields as appropriate. In the PY411 course described earlier, I was able to draw on many of the processes I developed or learned when I was involved in community or organizational change. Action research also integrates easily with phenomenon-based or problem-based learning, assisting a more holistic and practical education.

Learning happens in the classroom and elsewhere. For classroom work, the teachers themselves have some learning to do. For the future I anticipate, they will become not teachers, but learning facilitators. Teachers don't and can't learn for the learners. They create conditions under which learning is enabled and encouraged and rewarded. If they are to prepare their students for an uncertain future, their ability to facilitate learning activities will be crucial. To acquire the necessary skills and understanding, many will need help and guidance. For new educators, this may happen in training colleges in the future. For existing educators,

professional development may provide the guidance. Therefore, facilitators of educator training and of professional development are an important component of education for the future.

The future of action research will be shaped by the turbulence that seems likely to increase. Driven by globalization and technological advance, the world is becoming more connected. When almost everything affects almost everything else, predictability is diminished. Planned links between action and outcome are impaired. This is the future, too, of education. As turbulence intensifies, so does the need for flexibility on the part of educators. Mindset and attitude become more important than learned solutions. Education then has an even more important role to play.

There are choices. We can wait for the future to happen, or – despite its unpredictability – we can do whatever we can to prepare for it. The reforms in Finland began three decades ago. If the present pace of change continues to accelerate, we may not have three decades. If we begin soon enough, education has much to contribute. Action research can support and enhance the contribution.

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Part IV

Practitioner Researchers Share Their Action Research Experiences

21

The Experience of Students and Faculty When Elements of Bloom's Mastery Learning Are Used in an Online Statistics Course

A Participatory Action Research Study

Patrick Casselman

21.1 Introduction

Many students and faculty find that undergraduate statistics courses are challenging. Both express their frustrations while engaging in the study of statistics (Wilson, 2013). Some students report that they experience math anxiety, while others express disinterest or feel the material is not relevant to their careers (Lloyd & Robertson, 2012; Wilson, 2013). Faculty face the challenge of working with students who come from many different backgrounds and levels of preparedness as they endeavor to present material that is relevant to a wide variety of academic disciplines (Wilson, 2013).

21.2 The Challenges of Online Courses

When courses are implemented online, there are additional complications. Students tend to have more difficulty in online courses if they have poor time management skills or weak educational backgrounds (Jaggars & Xu, 2010). Concerns have been raised about students who take online courses for the first time. Many first-time students fail to take an active role in their learning and are reported to lack appreciation for the need to be self-disciplined, leading to problems with retention (Comer & Lenaghan, 2012). Faculty members are challenged when adapting their courses to online environments. Methods that worked well in traditional classrooms may not work well online. Their courses may need to be designed specifically for the web environment, rather than simply being transported from a campus version, to ensure students will be engaged and empowered (Jaggars & Xu, 2010). Often, faculty express qualms about online education because they assume that the active engagement of students with course material will be limited by a lack of face-to face interaction with students (Comer & Lenaghan, 2012). Faculty need to find ways to motivate online students to spend more time on task and engage in course activities, because research shows that student engagement and motivation is related to their success (Finnegan, Morris, & Lee, 2008).

21.2.1 Course-Level Retention

An important concern raised about online courses pertains to course-level retention. Retention is a complicated issue. For example, students may withdraw from differently formatted courses for a variety of reasons, leading to biased results (Xu & Jaggars, 2011). Dropout rates tend to be higher in online courses (Finnegan et al., 2008; Jaggars & Xu, 2010; Liu, Gomez, & Yen, 2009; Xu & Jaggars, 2011; Zavarella & Ignash, 2009). Reduced completion rates and grade performance are frequently associated with achievement gaps among students (Murphy, 2010). Most existing studies have ignored student retention as an output of concern (Xu & Jaggars, 2011). It was important to conduct further research about the experiences of students and faculty in online courses to see if there were ways to help more students successfully complete them. Research about using elements of Bloom's mastery learning strategy in an online statistics course was done to explore whether using them would benefit students, because similar methods had helped improve student retention in traditional learning environments (Guskey, 2007; Kreiner, 2006; Morris & Finnegan, 2008).

21.2.2 Online Course Quality

Concerns about the quality of online education have been escalating in importance for several reasons. First, a significant proportion of students have been enrolled in online courses. Allen and Seaman (2010) reported that the enrollments in online education rose to approximately 6.7 million and the number of students taking at least one online course climbed to 32%, while overall enrollments in higher education dropped. Second, nearly 70% of academic leaders feel that online learning is critical to their long-term strategies (Allen & Seaman, 2010). Lastly, important concerns about online learning have been raised by faculty. No more than one-third of academic officers say that their faculty accept the legitimacy and value of online education (Allen & Seaman, 2010). When faculty seek to develop quality courses, Palloff and Pratt (2013) recommend that they follow the principles of good practice provided by the American Association of Higher Education in 1987. The principles of good practice include: (i) establishment of meaningful contact between faculty and students, (ii) encouragement of cooperative exchanges between faculty and students, (iii) encouragement of active student participation while they are learning, (iv) steady provision of timely feedback, (v) ongoing encouragement for students to spend sufficient time on the course and remain engaged in course activities, (vi) ensuring that students understand that they must meet high expectations, and (vii) allowance for differences in the abilities of students and the ways they learn (Palloff & Pratt, 2013). It is evident that assuring quality in education is a nontrivial task and requires methodical planning and action. Many of these principles of good practice may be implemented by using elements of Bloom's mastery learning strategy. French et al. (2014) showed that the steps necessary to achieve higher quality and assure learning include: (i) discerning what must be learned, (ii) deciding the best way to measure how successfully students have mastered the learning objectives, (iii) gathering evidence that students have achieved learning outcomes, (iv) analyzing

the data collected, and (v) reflecting on the gathered data to improve learning processes and programs. All of these concerns show that it is necessary to closely examine ways to assure online course quality for the benefit of students, faculty, and academic institutions. It is noteworthy that steps 3–5 mentioned by French are incorporated as part of the process for participatory action research (PAR).

21.2.3   Achievement Gaps

Concerns about online education are also affected by the necessity of educating students with a broad variety of backgrounds, particularly those with minority backgrounds or those who are socio-economically disadvantaged (Murphy, 2010). Educators and researchers have struggled for years to find ways to make instruction suitable for these students, and many teachers have felt that students would learn better if such instruction were available (Guskey, 1997, 2007). Despite their struggles, gaps in achievement have been found between middle- and lower-class students and between middle-class students and students with various minority or cultural backgrounds (Murphy, 2010; Slavin & Lake, 2008). These differences in learning among various groups of students are called "achievement gaps" (Murphy, 2010). Politicians and educational leaders have demonstrated their concerns about these achievement gaps for several decades (Guskey, 2007). Attempts have been made to close achievement gaps by enacting legislation. For example, President Obama proposed extending the Elementary and Secondary Education Act (ESEA) partly for the purpose of closing achievement gaps (US Department of Education [USDE], 2011). These concerns about achievement gaps show that it is important to find an effective way to minimize achievement gaps so that more students can be helped to succeed (Liu et al., 2009).

21.3   The Research

My research was conducted at the State University of New York College of Technology at Canton (SUNY Canton), a state university in the northeast region of the United States with approximately 3800 students that had diverse backgrounds (SUNY Canton, 2014). The gender ratio was nearly one to one. Many students lived locally and others were international students attending from locations such as England, Russia, Japan, China, the Caribbean Islands, and Canada. Between 2004 and 2012, the average international student enrollment was about 6% with less than 1% living on campus and taking campus classes. I have taught both on-ground and online statistics courses at the college since the fall of 2007. While teaching online courses, I observed that it was not uncommon for 10–12% of the students to attain final grades of D or less, a criterion commonly used as a measure of course-level retention (Kendricks, 2011; Liu et al., 2009; Smith, Lange, & Huston, 2012). For my research, students were considered retained or successful completers if they achieved a grade of C or better in their courses (Finnegan et al., 2008). It was important to find instructional strategies that would help more

students succeed when taking statistics courses in online format where retention rates were lower (Xu & Jaggars, 2011). It was also important to find out if using elements of Bloom's mastery learning strategy could help more students complete online statistics courses successfully (Klecker & Chapman, 2008).

Purposeful sampling was used for this research. This type of sampling, rather than random assignment, is typically used for qualitative and action research (Stringer, 2014). According to Stringer (2014), "[purposeful sampling is a process] that consciously selects people on the basis of a particular set of attributes" (p. 77). For this type of sampling, it is important that all the persons who are affected by the concern being researched have an opportunity to collaborate and participate in the process (Denzin & Lincoln, 2013; Stringer, 2014). The purposeful sample was composed of 45 students who chose to take the online statistics course. Only those students choosing to take the online statistics course over the fall 2014 academic session were included in the study. For this research, the sample included the students and me, since we were the stakeholders.

21.4   Implementing Elements of Bloom's Mastery Learning Strategy

The educational intervention used in my research involved the use of elements of the instructional model developed by Benjamin S. Bloom around 1968. Bloom's instructional model implements feedback and corrective procedures. Originally, Bloom called his model "learning for mastery," but later renamed it "mastery learning" (Guskey, 1997, 2007). Bloom's mastery learning strategy was developed to address the need for ways to improve the quality of instruction and make it more appropriate for students, since differences in the achievement level of students had been observed for many years (Guskey, 1997). Benjamin Bloom reported that the 2-sigma performance difference between students taught in traditional classrooms and students taught individually by a tutor could be reduced to 1-sigma when his mastery learning strategy was used (Bloom, 1984). He felt that almost all students could attain a high achievement level, effectively reducing variation in achievement, if they are allowed adequate time and learning conditions (Guskey, 2007, 2010). Using elements of Bloom's mastery learning strategy has been shown to produce exceptionally positive effects on student learning in traditional classrooms (Guskey, 2007). Research has confirmed that using Bloom's mastery learning strategy helped students in traditional classrooms and that using similar methods could help students in online learning courses (Guskey, 2007; Kreiner, 2006). However, since the differences between traditional classrooms and online environments were significant, it was not possible to conclude that using elements of Bloom's mastery learning strategy would help student learning in online courses (Finch & Jacobs, 2012). Hence, it was important to explore the experiences of students and faculty when elements of Bloom's mastery learning strategy were used in online statistics courses to see if there were favorable effects (Klecker & Chapman, 2008; Liu et al., 2009; Sadeghi & Sadeghi, 2012).

There are many ideas about what is meant by mastery learning (Klecker & Chapman, 2008). To avoid confusion, it is important to distinguish which specific

methods were used for my research. Each element of Bloom's mastery learning strategy that was used for my research will now be explained along with the details of how these elements were implemented in my online statistics course.

21.4.1 Instructional Units

In line with Bloom's model, instruction was divided into units lasting one to two weeks (Guskey, 1997, 2007). My research was conducted during an academic session lasting 15 weeks, so seven instructional units were implemented in the online statistics course.

21.4.2 Formative Assessments

In each unit, formative assessments were used to determine whether students had mastered the content of an initial instructional sequence. Formative assessments were used to obtain feedback about the learning progress of my students so I could quickly respond with individualized help according to the needs of each student (Guskey, 1997, 2007). If students mastered the objectives of the initial instructional sequence, they were asked to continue onward to work on enrichment activities. When students did not master the fundamental objectives of the unit, they were given personalized corrective feedback and assistance (Guskey, 1997, 2007). Then they were given an alternate assessment that was similar in complexity, but different from the first one (Guskey, 1997, 2007).

21.4.3 Enrichment Activities

Enrichment activities may take a variety of forms, such as challenging problems, special projects, or academic games (Guskey, 1997, 2007). The enrichment activities used for my research were primarily more advanced and challenging problems related to the unit under study. The problems selected for these activities were chosen so that they would be interesting to students involved a variety of academic programs. The enrichment activities were chosen so that: (i) students wanted to participate in them and (ii) they broadened the students' experiences (Guskey, 1997, 2007).

21.4.4 Individualized Corrective Action

When a student failed to master the content of the initial instructional sequence, I incorporated individualized corrective action by means of feedback to each student (Guskey, 1997, 2007). Based on the results of their formative assessment, each student was provided a listing that included recommendations for activities that could help them to understand ways to improve their skills (Guskey, 1997). Guskey (1997) suggested that the correctives could take the form of a separate sheet. This form of feedback was used for my research. The feedback list provided specific suggestions for review and referred to supplemental materials that were different from the ones used during the initial instruction sequence, yet would help address the same material for the unit (Guskey, 1997, 2007).

21.4.5   Alternative Formative Assessment

The alternative formative assessment was a different assessment used to evaluate students' skills after the individualized corrective actions were completed. The alternate assessment covered the same material, but it was not the same as the initial assessment (Guskey, 1997, 2007). The alternative assessment, in keeping with Bloom's model, was administered only once. Allowing only one retry assessment distinguishes Bloom's model from many other forms of mastery learning. Administering the alternate test once made it reasonable to adapt mastery learning to courses offered during a postsecondary academic session lasting 15 weeks. Students completing the alternative assessment were allowed to participate in the enrichment activities. Allowing these students to participate in the enrichment activities helped make these valuable learning experiences available to all students (Guskey, 1997).

21.5   The Decision to Use Participatory Action Research

The purpose of my research was to seek a better understanding of ways to help more students succeed in online statistics courses, and explore the experience of students and faculty when elements of Bloom's mastery learning strategy were used. Conducting this research helped further previous studies, and helped show whether the use of elements of Bloom's mastery learning strategy in an online statistics course favorably affected the experience of faculty and students (Kreiner, 2006; Liu et al., 2009; Zavarella & Ignash, 2009). The research addressed the question: What is the experience of students and faculty when elements of Bloom's mastery learning strategy are used in an online statistics course? For this research, PAR was selected to study the experiences of students and faculty when elements of Bloom's mastery learning strategy were used in a postsecondary statistics course. PAR is a type of action research which is commonly used for research about education and instructional processes (Herr & Anderson, 2005; Stringer, 2014).

The PAR procedure is an iterative research process that is commonly likened to a spiral. Stringer (2014) described a similar act–think–look spiral that is used when planning, implementing, and evaluating processes. PAR has four basic process steps: (i) planning, (ii) implementing the plan, (iii) analyzing and reflecting on the effects of the implementation, and (iv) revising the plan for implementation based on the analysis in the previous step. After the plan has been revised, the research continues through additional cycles of implementation, analysis, and revision for as long as the research continues (Herr & Anderson, 2005; Stringer, 2014). There are several key characteristics that made PAR an ideal choice for my research.

21.5.1   Hearing All Voices

PAR was the best research method for my study of this classroom intervention because it produced knowledge which was based on the local situation that could be helpful to all of the local participants, including the students and me, the

researcher/instructor (Herr & Anderson, 2005; Stringer, 2014). PAR begins with a concern about a problem affecting a group or organization (Stringer, 2014). The purpose of this type of research is to help the concerned parties to understand and resolve the problems they face (Herr & Anderson, 2005; Stringer, 2014). An important feature of the PAR process is that it includes the requirement of ensuring that the voices of all of the stakeholders, the students and faculty, are heard (Herr & Anderson, 2005; Stringer, 2014). For my research, it was important to gather information that highlighted the perspective of both the instructor and the students, since both were affected by that intervention. Through the analysis of student grades, student opinions gathered from questionnaires, and the reflections of the researcher/instructor, the voices of these stakeholders were taken into consideration. It was anticipated that the results could be used as a basis for planning future benefits for the participants and others, such as restructuring course organization or content to help further improve the experience of faculty and students.

21.5.2 Flexibility

Another reason why PAR was selected for this research has to do with the dynamic nature of this type of research. The PAR process incorporates flexibility and action based on the knowledge generated by the stakeholders as the research progresses (Denzin & Lincoln, 2013). A dynamic aspect of PAR is that adjustments may be made to the research process based on the input of the stakeholders, if necessary. For example, an important feature of PAR in my research was that the intended implementation for the elements of Bloom's mastery learning strategy could be changed while the research continued, based on any data gathered along the way (Stringer, 2014). The procedures, methods of data collection, the participants, and the research questions for this research could be changed, if necessary, based on progressive findings (Herr & Anderson, 2005). This flexible aspect of PAR has been likened to designing a plane while flying it (Herr & Anderson, 2005). This important feature enabled me to respond and make adjustments based on issues that involved either the students or the implementation of the educational intervention to ensure the most meaningful results were obtained while minimizing harm to the students (Herr & Anderson, 2005).

21.5.3 Similarity to Everyday Teaching Practice

The spiral process built into PAR closely matches the routine experience of teachers as they refine the content and implementations of their courses. This parallel makes PAR ideal for exploring the effects of an ongoing action – in this case, an educational intervention, in a specific setting, such as an online classroom (Herr & Anderson, 2005). A key purpose of action research is to find a solution that is suitable for the local environment where a problem has been identified (Stringer, 2014). This characteristic makes PAR well suited for research about instructional processes in educational courses.

21.5.4   Participatory Aspect of PAR

As the name for this type of research suggests, PAR includes participation. The students and I were the most important stakeholders for this action research, so all of us were included (Stringer, 2014). First, there is participation by the researcher. For my research, I was a participant in the research process, functioning in the roles of both the researcher and the instructor. I acted as an insider researcher who was studying his own practice. My research was a form of practitioner research, which focuses on the outcomes related to a program or action in the researcher's setting (Herr & Anderson, 2005). Second, the research is participatory because the other stakeholders affected by the problem under study are included in the research process (Herr & Anderson, 2005; Stringer, 2014). For my research, the other stakeholders were the students who were enrolled in the online course, so I collaborated with them while the research continued. This collaboration is an important part of the PAR process and it is needed for knowledge generation (Denzin & Lincoln, 2013; Stringer, 2014). The experiences of the students were important factors that were considered when planning any necessary modifications to the instructional process.

21.5.5   Action in the Research Process

Part of the PAR process involves taking action based on the knowledge generated by the stakeholders as the research commences (Denzin & Lincoln, 2013). This dynamic feature made it possible for changes to be made to the research process based on the input of the stakeholders, if necessary. As noted above, using PAR gave me the flexibility to change the procedures, methods of data collection, the participants, and the research questions for this research, if necessary, based on progressive findings to ensure the most meaningful results while minimizing harm to the students (Herr & Anderson, 2005).

  Based on these characteristics, I decided that PAR was the best methodology for my research. The flexibility of this process made it relatively easy to conduct research in my course without hindering the progress of the students, and using it did not prevent me from managing the course effectively. In many ways, the PAR process formalized activities that I had previously tried to do as I pursued improvement in the quality of my courses.

21.6   Configuring the Course for My Research

The PAR process begins with a plan (Herr & Anderson, 2005; Stringer, 2014). For my research, the plan was to use elements of Bloom's mastery learning strategy in an online statistics course. The next step in the PAR spiral process was to implement various elements of Bloom's strategy into the existing course. After the implementation, I observed the effects of using elements of Bloom's mastery learning strategy. The participatory nature of PAR made it possible for me to serve as both the course instructor and the researcher. I documented the effects of the implementation, analyzed and reflected on the data, and planned the way

forward for my research. The observed effects of using Bloom's mastery learning strategy were evaluated to identify strengths and weaknesses. After the period of reflection, the PAR spiral process was started again. When necessary, changes were made to the plan for implementing elements of Bloom's mastery learning. Any revisions to the plan were then implemented and the sequential steps of the PAR spiral process were continued. The iterative PAR spiral process was allowed to continue as long as necessary, repeating the sequence of implementation, observation, reflection, and planning (Herr & Anderson, 2005).

A reflective journal was maintained by me for the duration of the research. The journal was used to log my observations and concerns as the research progressed. Any decision-making process was recorded in detail, so that it could be analyzed later, as necessary. My opinions and conclusions were recorded in detail, showing any pertinent reactions to the course implementation, student opinions, or any other course-related events.

21.6.1 Course Implementation

The statistics course was provided via an online course management system (CMS) developed by Angel. Within the CMS, software tools were provided for the distribution and collection of course materials, as well as for communication between students and the instructor. I was able to control the instructional path for each student when they were treated with elements of Bloom's mastery learning strategy.

21.6.2 Managing Students' Progress

The Angel CMS had a team feature that was helpful for implementing the mastery learning strategy. The course content that was viewable by each student could be managed by assigning them to appropriate teams. Using this arrangement, each student could be assigned to view only the activities that they were eligible to undertake. Using this facility to guide each student through the elements of the mastery learning model applicable to them for that unit was important for my research, because it enabled me to individualize their instruction according to their needs.

21.6.3 Course Structure

The course was divided into seven units. Elements of Bloom's mastery learning strategy were not implemented until after the completion of the third unit. Each unit was timed to complete in 14 days.

21.6.3.1 Units 1 to 3

To allow students time to become familiar with the course navigation and content, they were assigned to complete the course requirements for units 1–3 and the midterm exam without being exposed to elements of Bloom's mastery learning strategy. The methods that I used while instructing the course during this period were the same as those I had been using in previous courses. The content

for units 1–3 included assignments and assessments that were formatted similarly to materials that were to be provided later in the course. The students were given assignments at the beginning of each unit, requiring them to complete textbook readings and view supplemental videos. Then, they were assigned problem sets as assessments. These assessments were graded, and each student was given feedback regarding his or her work. After students completed unit 3, they were assigned to complete a midterm exam.

After students completed the material for units 1–3, questionnaires were used to gather information about their opinions. Using Likert scales, students were asked to respond to questions about the course assignments, the course materials, the feedback that I provided, and whether they felt the material for the unit was difficult. The students were also asked to answer an open-ended question that asked them to comment on anything that they felt would help improve the quality of the course. These responses made by the students were used later when decisions were made about the course implementation (Herr & Anderson, 2005; Stringer, 2014).

In addition to the questionnaires, students' grades were used to help establish a baseline for their performance in the course without the intervention involving elements of Bloom's mastery learning strategy. Assessments were treated as summative in the first three units. The scores for each question in the assessments were assigned based on the grading rubric. The grading rubric used was quite similar to the one suggested by Guskey (1997, p. 70). A grade score was computed after each unit. The grade score was weighted so that 80% of the grade was based on the written assignments and 20% on the examination scores.

21.6.3.2 Units 4 and 5

Elements of Bloom's mastery learning strategy were introduced beginning with unit 4. Two sequential units were used for the introduction of elements of Bloom's mastery learning strategy to enable students and faculty to become familiar with the revised processes that were part of this strategy. All students were given assignments at the beginning of each unit, requiring them to complete textbook readings, view videos, and do other homework designed to evaluate their mastery of course objectives. The first homework assignment turned in by the students was treated as a formative assessment. Each student was given personalized feedback about their work. In a feedback listing, I provided suggestions for further readings in the course text, or other supplemental information that was selected to assist them personally with any difficulties. Based on the results of the formative assessment, the participants were required to follow one of two possible instructional paths. Students who did not achieve a score of 75% or higher on their assignment did not master the objectives of the unit. These students were required to review individualized corrective feedback that I provided after the formative assessment. Then, they were required to take an assessment that served as an alternate version for the formative assessment they failed to master. The alternate assessment was similar in content and complexity, but different from the first formative assessment. Students were allowed to take the alternate assessment only one time (Guskey, 1997). After submitting the alternate assessment, students were allowed to work on enrichment activities as time permitted

until the start of the next unit. If students mastered the basic objectives for the unit in the first formative assessment, they were allowed to begin work on the enrichment activities immediately. The link for the enrichment activities was configured to remain invisible unless the students achieved a score of 75% or better on the first formative assessment or they completed the alternate assessment. The enrichment activities were more advanced assignment problems or learning activities that provided additional course-related learning experiences for the students (Guskey, 1997).

Questionnaires were used to gather information about the opinions of the students after unit 5 and for the remainder of the course. Students were asked all of the questions included in the questionnaire administered after the first three units. Additional questions were also posed to determine students' opinions of the use of elements of Bloom's mastery learning. They were asked whether they felt the opportunity to do an alternate assessment helped and whether they felt the enrichment activities were interesting and informative. The questionnaires were not modified for the remainder of the course. The students' opinions influenced decisions that were made about potential modifications to the implementation of elements of Bloom's mastery learning, when necessary (Herr & Anderson, 2005; Stringer, 2014).

While course units 4 through 7 were underway, the assessment scores achieved by the students were also gathered. The same grading rubric used in units 1–3 was used for grading the formative, alternate, and summative assessments in units 4–7. The grades for all assessments were used as a basis for calculating course grades. When a student failed to achieve mastery in the formative assessment, they were given individualized feedback, including suggestions for reviewing alternate materials that would help them to correct their misunderstandings, and they were required to take the alternate assessment for that unit (Guskey, 1997). As Guskey suggested, for purposes of grading, these students were given the higher of the scores they achieved on the formative and alternate assessments.

21.6.3.3 Units 6 and 7

Based on the results of the analysis for units 4 and 5, consideration was given to changing the way elements of Bloom's mastery learning strategy was implemented after unit 5. After reflection on my concerns and those expressed by my students, I decided to continue using elements of Bloom's mastery learning strategy after unit 5 with a minor adjustment to the configuration of the course management system. Students had expressed concerns about delays in starting the enrichment activities. The delay was caused by the time required for grading the initial formative assessment. I also had concerns about the delay because I felt pressured to complete the grading quickly to minimize students' wait time. After reflection on this matter, I decided to make the enrichment activities available at the same time as the initial formative assessment at the start of each unit. This adjustment made it possible for students to begin working on the enrichment activities while my grading process took place and it eliminated the students' concerns about grading delays. Occasionally, some students refused to do the alternate assessment after this when it was determined that they failed to

achieve a score of 75% on the formative assessment. However, the ability to make an adjustment like this well illustrates the flexibility of using PAR for this research.

The PAR reflective spiral process continued after unit 5 and until the end of the course. After the course was completed, another PAR spiral process was carried out to reflect on the results and recommend further modifications to improve implementation of methods of mastery learning in future courses.

21.6.4 Analyzing the Data

The data were gathered and analyzed before and after the introduction of elements of Bloom's mastery learning strategy. The methods used to gather the data remained unchanged for the duration of the course and data were gathered from the students and me. The methods used for analysis depended on the type of data – qualitative or quantitative – and the characteristics of the data. Appropriate methods for descriptive and inferential statistics were used when exploring the effects of using elements of Bloom's mastery learning on student grades.

21.6.5 Questionnaires

The responses to questions using Likert scales were categorical data. Contingency tables and proportions were used when analyzing this type of data (Khamis, 2011). Analysis of the Likert scale data shed light on student opinions about the course and the implementation of elements of Bloom's mastery learning. The students' responses to the open-ended question were analyzed using the five-step reflective process and the nine-step typological process (Cowan, 2014; Hatch, 2002). The typologies used for this analysis were complaints, questions, and observations. The complaints typology referred to any comments made by students indicating they were having problems or frustrations due to the course content or management. The questions typology pertained to questions that were raised by students. The observations typology was used to classify comments that related to the students' opinions of course structure, content, or management.

21.6.6 Grades

To determine appropriate methods of analysis, it was necessary to check whether the grade data followed a normal distribution because this characteristic was an important factor when deciding whether parametric or nonparametric statistical methods were used for analysis (Black, 1999). As recommended by Black (1999), a histogram, showing a normal distribution curve superimposed, and a frequency polygon were generated for the grade distributions to help determine if these data followed a normal distribution. Black (1999) suggested other tests may be necessary to measure normality for academic research. To verify normality more precisely, the Shapiro–Wilk test was conducted with alpha set to 0.05 (Mecklin, 2007). The results of the Shapiro–Wilk test indicated that the data did not follow a normal distribution.

The grade distribution for the students during units 4–7, when they were exposed to elements of Bloom's mastery learning strategy, was compared to the grade distribution for units 1–3 to find differences. Since the grade data did not follow a normal distribution, nonparametric tests, such as the signs test, were used (Black, 1999).

21.6.7 Reflective Journal

The reflective journal was used to record my observations, opinions, conclusions, and decisions while the research was in progress. These data were qualitative, so the five-step reflective process and the nine-step typological process were used for analysis (Cowan, 2014; Hatch, 2002). As suggested by Cowan (2014), the reflective process used for this research was structured as a five-step process: (i) describe the problem or issue, including impressions or feelings; (ii) review the problem or issue from multiple perspectives; (iii) self-challenge by reflecting critically on my assertions, conclusions, and the priorities I set; (iv) carefully consider the possibility of different future actions and views; and (v) reflect on the reflective process itself by considering what additional information I would need to ensure that any generalizations I made were valid.

As suggested by Hatch (2002), a nine-step process involving typological analysis was used to systematically analyze the qualitative data gathered from my journal. The typologies used for my research included observations, plans, and conclusions. The observations typology referred to any of the observations recorded by me as the research continued. The plans typology pertained to any plans made by me for the course content, implementation of the instructional strategy, or management of the course. The conclusions typology was used to classify any conclusions based on my findings during the research process.

21.6.8 Findings

21.6.8.1 Qualitative data

The qualitative data that I gathered during my research enabled me to understand which portions of the course the students considered to be more difficult. Many students were challenged by certain topics, such as probability and confidence intervals. Frequently, they requested additional help using Microsoft Excel to solve problems, additional examples, and instructional videos. I added sample files, showing how Microsoft Excel could be used to solve similar problems to those in their assignments. I also investigated ways to provide instructional videos, but concerns related to accessibility prevented me from implementing them in my course until after my research was completed. After I first introduced elements of Bloom's mastery learning to the course, some students expressed concerns about waiting for the formative assessment to be graded. Based on their concerns, I adjusted the implementation of the course, so the enrichment activities were available at the beginning of the unit. In that way, students could begin working on them, with the understanding that they could be required to go back and prepare for an alternate assessment if they failed to demonstrate mastery in the formative assessment. After that adjustment, there were no further concerns

expressed by the students that were related to the use of elements of Bloom's mastery learning strategy.

21.6.8.2 Grade data

The grade data gathered for my research enabled me to monitor performance trends of students in the statistics course. Outliers were identified in the grade score data among the lower values of the grades. None were identified among the upper values of the data. The outliers were those grade scores that were more than 1.5 times the interquartile range below the first quartile. Many of the outliers were caused by student nonparticipation. Their lack of participation was not caused by the use of elements of Bloom's mastery learning strategy, since they were not introduced until later in the course. Although the number of outliers was substantial, I decided not to exclude any of the outlying data. The reason for this decision was that the PAR process imposes the requirement of ensuring that the voices of all of the stakeholders, the students and faculty, are heard (Herr & Anderson, 2005; Stringer, 2014). The nonparticipating students' grade data were retained so their voices would be reflected in the data and the research results. If the six outliers for the grade distribution were removed from consideration, 32 of 38 students achieved a letter grade of C or better.

Sign tests were used to evaluate whether there were significant differences in the grade performance of students when elements of mastery learning were used. In either case, assumptions for the sign tests included the fact that the level of significance was equal to 0.05 and that the probability of success was equal to 0.5. As usual, data were excluded from the tests when there was no difference between the data values compared. When testing to determine whether the grade performance was better, the null hypothesis was that the grades accounting for the effects of using Bloom's mastery learning were less or equal to those when Bloom's mastery learning was not used. I concluded that the grade scores and the total assignment points were better at the $\alpha = 0.05$ level of significance when the alternate assessment feature was implemented. Implementing the alternate assessments arrangement positively affected the mean values for the data in every case. When testing whether there was a difference in the grades, a two-tail test was used and the null hypothesis for the sign test was that there was no difference in the grade scores. Based on the test results, I concluded that the grade scores and the total homework points were different at the $\alpha = 0.05$ level of significance. Overall, the grades were better, but the improvement in the grades was not a 1-sigma improvement as reported by Bloom (Guskey, 1997). The improvement in the grade scores was a favorable experience for the students when elements of Bloom's mastery learning strategy were used in the online statistics course.

21.6.8.3 Reflective journal

Analysis of my reflective journal helped me to find many ways to improve my course. My reflections about student performance helped plan ways to help students who were not participating in the course. Reflection led me to conclude that I had to develop ways to improve the quality of the individualized feedback I provided students so that it would be more meaningful and helpful for them.

Reflection also led me to conclude that more video resources that were accessible to all students were needed in my course. I located some supplemental video resources provided with the course text and some informative YouTube videos and made them available to my students. I continue to research ways to produce supplemental resources for my students.

21.7 Reflections on the Use of PAR

I do not regret my choice to use PAR for my research. Many of the features of this type of research fit well with the ongoing processes that I used in my courses, so I could continue my usual day-to-day course activities with little interference. Using PAR enhanced my ability to help my students succeed and it helped me with my course-related decision processes.

21.7.1 Meaningful Results

Using PAR enabled me to obtain meaningful results that could be used for my benefit and the benefit of my students. My research showed that using elements of Bloom's mastery learning strategy helped improve student success. The PAR process helped me to realize that I needed to spend more time to improve the quality of my feedback to students so they could correct their misunderstandings when taking their formative assessments. Analysis of student feedback made it clear that students needed better support materials, such as visual media, to help them better understand course concepts. Analysis of my reflective journal and student feedback helped me to realize that I needed to shift the amount of time that I allowed for some course units, increasing time for some and reducing time for others.

21.7.2 Course Quality Improvement

The spiral process of (i) planning, (ii) implementing the plan, (iii) analyzing and reflecting on the effects of the implementation, and (iv) revising the plan for implementation based on the analysis in the previous step helped me to improve the quality of my course during my research (Herr & Anderson, 2005; Stringer, 2014). Using the PAR process in my research has encouraged me to continue using those methods to implement an ongoing quality improvement process in my current courses. The analysis, reflection, and feedback processes make it possible to quickly identify problem areas and formulate appropriate responses that benefit both teachers and students, while maintaining ethical balance.

21.7.3 Minimal Disruption

The PAR process fit well with the methods I already used in my courses. My research did not interfere with any of the necessary activities for teaching my courses or other institutional responsibilities. Time was required for reflection, analysis, and planning. However, I did not find the required time to be excessive.

21.7.4 All Voices Heard

The participatory aspect of PAR helped ensure that all voices affected by the problem situation – i.e. course-level retention in an online course – would be considered and factored into the findings and planning. These voices included my students and me. The comments I received from my students and my own reflections both proved invaluable. Student concerns about specific course materials and about the feedback that I provided for them continue to motivate me when I plan for my classes. I could factor in both of our points of view when planning for the course, and it helped me to minimize the impact of the research on my course.

21.7.5 Flexibility

The inherent flexibility of PAR made it possible to adjust the research methods for the benefit of the students or for my own benefit, when necessary. For example, I could change the sequencing of the presentation of course materials to benefit my students and me without the necessity of restarting or aborting the previous research. This aspect of PAR helped reduce my anxiety as the researcher, because I knew before starting the research that there was a mechanism for managing unforeseen events.

I strongly recommend PAR, particularly for research pertaining to educational interventions. This process, rooted in practitioner research, with its many features that can easily be introduced in many educational settings, makes it ideal for helping teachers reach more students and helping them to be successful.

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22

The Function of Freedom

Practitioner Action Research in Emancipatory Social Justice Teacher Education

Amy Rector-Aranda

Like other critical scholars working toward transformative social justice, aligning my means and ends has been an imperative underlying the work I do, both in and beyond the classroom (Kincheloe & Steinberg, 1998; Picower, 2012; Rosenthal, 2000). Many teacher education programs are also now explicitly placing education for social justice as a central component to their missions (Hytten & Bettez, 2011), and the program at the urban Midwestern university where I began the work discussed in this chapter similarly emphasizes preparing educators to enable diverse learners in urban classrooms, who remain underserved despite decades of educational reform (Au, 2009; Donnor, 2013; Saltman, 2012; Stovall, 2013).

To support these aims, I conducted practitioner action research on my use and modeling of a pedagogical framework, known as *critically compassionate intellectualism* (CCI) (Cammarota & Romero, 2006a), in an educational foundations course. CCI was cultivated through several programs implemented for Latinx youth in Arizona high schools (Romero, Arce, & Cammarota, 2009). These social justice-oriented programs were meant to counter injustices that Latinx and other racial/ethnic minority students face in our education system, particularly exemplified in the low-tracked, vocation-focused, and generally non-critical educational experiences provided to the majority of these youth (Cammarota & Romero, 2006a, 2006b; Romero et al., 2009). The original CCI framework centers on critical pedagogy (Freire, 1970/1993), authentic caring (Valenzuela, 1999), and a social justice curriculum and purpose (Ginwright & Cammarota, 2002). I have also incorporated relational-cultural theory (Jordan, 1995; Miller & Stiver, 1997) into my extended interpretation of CCI, which draws attention to the relational factors of trust, mutual empathy, authenticity, shared power, and growth-in-connection in teaching and learning (Rector-Aranda, in press). The CCI framework has been shown to be truly emancipatory for Latinx high school students, fostering their critical consciousness in addition to greater academic achievement and life competencies.

In this chapter, I give an overview of my study and specifically discuss how, as a practitioner-researcher, I was guided by CCI in my selection of the action

research paradigm and methods that allowed me to retain my stance as an advocate for critical consciousness, care and compassion, and the intellectual pursuit of emancipatory educational and social justice.

22.1 The Function of Freedom is to Free Somebody Else[1]

In my research and experience, I have found there is quite a difference between the most widely adopted understandings of social justice education and what could be considered *emancipatory* social justice education. Many of the former are watered-down versions of what began as the ideas and efforts of those most personally affected by injustice. Atasay (2015), for example, problematizes the current emphasis on multicultural education, asserting that it has been commodified to meet neoliberalism's shallow calls for social justice based solely in a competitive market mentality. This kind of justice only occasions creating educational equality for the ends of raising the earning capacities of students. Here, multiculturalism exists as a means for students to compete in a global marketplace, rather than to respect differences and alternative visions of the good life that may not rest upon economic goals. This is unsurprising, given the current neoliberal influence on education (Sadovnik, Cookson, & Semel, 2013), where social justice is viewed in functional rather than transformative terms.

To counter this trend, I have consciously used CCI as a way to align my practice with the epistemologies and experiences of students of color rather than the superficial ideals of most mainstream initiatives (Castagno, 2014). Honoring the roots of CCI in a project to empower Latinx students, I expanded on the project in order to study how CCI can also support teacher education students, especially those who have traditionally been marginalized in teacher education programs (Cochran-Smith & Villegas, 2016), as well as serve as a model for those who will one day teach in racially diverse, low-income, or otherwise disenfranchised communities. While some of my students have been more culturally privileged than others, they have all still rarely experienced anything but different varieties of apolitical, banking pedagogy, and have been denied critical and transformative opportunities to create their own knowledge. It is crucial that all future teachers be able to personally understand and name this phenomenon in order to proceed toward a more emancipatory practice in their own classrooms, and CCI offers a physical and visible example for these preservice teachers to experience and consider as they form their own teaching identities.

In the course of my research, I did consider other existing frameworks for social justice teacher preparation; however, they tended to lack CCI's strong emphasis on alleviating oppression and empowering students as social actors. I continued to focus on CCI because it is directly rooted in this kind of transformative social justice pedagogy for marginalized youth. When I educate future teachers through CCI, I use curriculum that frames the causes and purposes of social justice education in necessarily more radical and race-conscious ways than are currently typical in teacher education, especially for a White educator like

myself. As critical race and whiteness scholars argue, the typical liberal teacher education program tends toward a universalized and diluted version of what it means to educate for social justice, and who and what it is we are aiming to support in doing so (Castagno, 2014; Matias, 2013). Ignoring that students of color are perpetually the disproportionate recipients of social and educational injustices – especially when their race intersects with other marginalized identities such as gender, ability, or socio-economic status – negates the anti-racist and transformative goals that should underscore social justice education. Modeling pedagogies like CCI can help prepare teachers who aim to empower their underserved students beyond academic learning or earning capacity with the ability to challenge and overcome the larger social and structural obstacles they face.

22.2 Action Research is Critical, Compassionate, and Intellectual

Connecting CCI pedagogy to classroom inquiry, I argue that the research we do with or on behalf of students who have been disempowered should also be explicitly compassionate and emancipatory, especially when conducted by practitioner-researchers committed to these ideals. Regarding the privileging of certain ways of being and knowing, Milner notes, "the dominant and oppressive perspective is that White people, their beliefs, experiences, and epistemologies … are often viewed as 'the norm' by which others are compared, measured, assessed, and evaluated" (Milner, 2007, p. 389). Instead, I believe the CCI model is more fitting when considering for whom it is we claim to be doing this research, under what assumptions, and to what ends. "The idea is that epistemologies need to be 'colored' and that the research community may need to be exposed to theories, perspectives, views, positions, and discourses that emerge from the experiences and points of view of people and researchers of color" (p. 390). As such, CCI was not only the topic of my inquiry, but also the theoretical foundation for all of my methodological choices.

The foundational principles of action research as a mutually empathic form of inquiry, wherein the researcher exerts authentic "power with" rather than "power over" participants, correlates with key tenets of CCI. Action research was the appropriate choice for this study because, at its core, action research is research done *by* and *with* actors and stakeholders in a setting, rather than *to* or *on* them, which is vital to research meant to empower participants (Herr & Anderson, 2015). "AR promotes broad participation in the research process and supports action leading to a more just, sustainable, or satisfying situation for the stakeholders" (Greenwood & Levin, 2007, p. 3). In addition to being a researcher, I was a participant and stakeholder along with my students, which is significant considering educational research is predominantly conducted by outside researchers, and teachers and students have little or no influence on the process or its implications for their work.

Action research was a means to effect immediate change for myself as a practitioner and for the student participants, and to help disrupt mainstream

epistemological assumptions of what counts as research in the first place (Kincheloe, 2008). As *educational* action research, this work centered on "altering curriculum, challenging common school practices, and working for social change by engaging in a continuous process of problem posing, data gathering, analysis, and action" (Cochran-Smith & Lytle, 2009, p. 40). This was also *practitioner* action research, which is a systematic inquiry into personal practice marked by the desire to inform or transform (Adams, 2015) and based in an extended epistemology that recognizes experiential, presentational, propositional, and practical ways of knowing (Heron & Reason, 1997). Four semesters of this research represented four practitioner action research cycles of action and reflection if viewed broadly, and many micro-cycles throughout each semester, as I navigated students' implicit and explicit responses and made constant adjustments to my pedagogy and curriculum. Because I also sought the input of the whole community of my classroom, participatory projects with students helped me gain further insight into their varied perspectives.

At the conclusion of the four cycles of course-embedded inquiry was a fifth cycle in which I took the body of qualitative data as a whole and analyzed it through a critical constructivist lens, incorporating a participative worldview that was self-reflexive, based in my own experiential encounters with reality as a practitioner-researcher (Frank, 2013). This part of the project was mainly descriptive, as opposed to interpretive or theory-generating, with the aim to provide evidence about what occurred in relation to the CCI framework – to show and explain the most important ways students and I enacted, experienced, and made sense of the existing framework.

Although it might have been possible to study my question using a different research approach, action research was more fitting than any other, specifically because of its emphasis on immediate reflection, action, and movement toward positive social change for those directly involved in the research. Unlike most other forms of research that are purposely designed to separate out theorizing from action, action research, as its name implies, is unequivocally meant to link interpretation and theorizing to immediate action with and on behalf of the participants. Likewise, while some methods consider relationships between researchers and their participants to cause unacceptable bias, action research sees relationships and their consideration as key elements of any humanizing research process. This focus on the participants as subjects rather than objects aligns well with an emancipatory stance.

22.3   CCI as Both Process and Product

The CCI framework further permeated the process of this study in several specific ways. First, the groundwork – the theory and literature reviews, examination of researcher and participant positionalities, and philosophical justifications for the work – served to situate the project in critical inquiry, considering alternative perspectives, assumptions, ideologies, and other reasons for both enacting CCI and studying it formally within my context. This resulted, for example, in naming and calling into question the mainstream epistemological barriers to transformative pedagogy and research in education; examining the

politicality/apoliticality of doing any kind of research; troubling my positionality as a White educator using a "framework of color" (Milner, 2007); and thoughtfully considering the assumptions and aims that drive social justice work generally. These aligned the project with the critical and intellectual aims of CCI, but also with the care element, since underlying this extensive groundwork was my genuine concern to be a competent ally-advocate for those most marginalized by systemic oppressions.

Next was an overall valuing of contextual and localized knowledge for the primary purpose of direct action and sustainable change with and on behalf of participants and their future students. Action research was itself chosen on the basis of its "radical respect for others' experiences, openness to being moved and influenced by others, and shared power" (Jordan, 2014, p. 682), as well as "unapologetic ethical and political engagement and its commitment to working with community partners to achieve positive social change" (Brydon-Miller, 2009, p. 243). For example, participatory action research methods like photovoice (Wang & Burris, 1997) and group-level assessment (Vaughn & Lohmueller, 2014) ensured students were co-creators of the knowledge being produced. Further, my voice as a practitioner possessing intimate and implicit knowledge of my own students and setting was foregrounded in this study. In the face of a culture of evidence that demands research be detached and generalizable – in which research is typically conducted *on* rather than *with* teachers and students – this emphasis on participant knowledge aligns with CCI as an emancipatory framework. It challenges the status quo in education research, in which teachers and students are treated as transmitters and/or receptacles of someone else's knowledge, rather than as possessors and creators of knowledge (Freire, 1970/1993).

Finally, the research methods encompassed a relational and reflective ethical orientation, rich, holistic means of evaluation, and transformative aims, which again helped the study adhere to the tenets of CCI. Augmenting traditional, "contractual" research ethics, this project embodied a *covenantal* ethics, which suggests "a solemn and personally compelling commitment to act in the good of others" (Brydon-Miller, 2009, p. 255). Care and relationships were at the heart of procedural decisions, such as forming trusting relationships with students before asking them to participate in the study.[2] I also utilized the Structured Ethical Reflection process to align my actions with the CCI values at each phase of the research (Brydon-Miller, Rector Aranda, & Stevens, 2015; Stevens, Brydon-Miller, & Raider-Roth, 2016). I carefully chose methods to address what I consider more socially engaged measures of quality/reliability, which include *process* and *outcome* validity, but also how *democratic*, *catalytic*, and *dialogic* the research was (Anderson, Herr, & Nihlen, 2007). The project was also holistic and action-oriented, addressing the nuanced needs of a specific community/context. Action research is best known for its cyclical, iterative nature, in which a researcher/community identifies a need, plans, acts on that plan, observes, reflects, and makes the next plan based on that reflection, beginning the cycle again (Hill, 2015). This project was further strengthened in the final cycle using eclectic coding (Saldaña, 2016) and equally "thick" descriptive analysis (Denzin, 1989) of the overall project. This analysis made it possible to better disseminate findings from the earlier cycles, and thereby share evidence that CCI is worth considering in discussions of teacher education for emancipatory social justice.

22.4   New Understandings of CCI Through Practitioner Action Research

In this study, I examined how my implementation of CCI influenced my policies, practices, and pedagogy, and what this meant for students' learning and other experiences in the course. I have elsewhere described these findings in more depth (Rector-Aranda, forthcoming). A breakthrough for this project that is particularly relevant for this discussion concerned my understanding of the CCI framework itself. While I always believed the three parts of CCI were equally necessary, working together to create the contexts for meaningful learning toward emancipatory social justice ideals for my teacher education students, I did not previously realize how much they were actually *intertwined*, not just working side by side. I believed that critical competence was necessary for students to be able to assess content and topics of importance, that relationships and care were crucial for supporting students in their learning and growth, and that curriculum that was not specifically geared toward structural understandings of inequity and social justice had the potential to instead reinforce deficit ideologies and perpetuate injustice. However, I did not fully realize the complex interactions occurring among the CCI components.

22.4.1   Critical Pedagogy

First, care and compassion are necessary in an authentically critical pedagogy in order to challenge and offer alternatives to the chronic relational disconnections that are often unquestioned in educational culture. For example, expressing vulnerability, sharing power with students, and trusting and respecting students as inherently knowing beings are all ways to disrupt educational contexts of disconnection that mimic the defensive, hierarchical, and interactive forms of disconnection rampant in the larger culture. Critical pedagogy would especially associate these persistent forms of disconnection with an individualistic, capitalist culture, in which such disconnection is necessary to reproduce divisions of labor and hierarchies of power, knowledge, and privilege.

Critical pedagogy is also as much about social justice curriculum as it is about practice; therefore, content must be purposefully selected that will help students deeply examine the structures that perpetuate dominance and oppression and spur them to act. For example, it is difficult to expect students to become energized about educational inequity when using an uninspiring textbook that only superficially discusses important social justice topics, if it does at all. It is also imperative that critical pedagogues pay close attention to whether certain readings may actually "turn off" their undergraduate students, which is a common reproach of critical academics who too often write from a privileged intellectual position using language inaccessible to the less educated and the working-class – the very people whom they claim to champion. In addition to more approachable readings, using students' own cultures and familiar ways of knowing to teach new content are at the heart of critical pedagogy, thus helping them connect new knowledge with their lived experiences. Modern students live immersed in multiple media forms; therefore, the critical pedagogue should

equally use art and media to share important content, which has the added benefit of supporting diverse learners who may better construct knowledge through visual or audial modes.

22.4.2   Care and Compassion

Next, relational connection and support create a safe space in which students may more confidently question taken-for-granted knowledge, trust their own ability to create new knowledge, and become comfortable with discomfort as they critically examine their own positionalities of power, privilege, and vulnerability. For example, when teacher–student and/or student–student relationships are established within a context of care and trust, students feel safer voicing their ideas, experiences, and understandings in the discussions, written reflections, and collaborative activities that make up a critical pedagogy.

Care and compassion also make it easier for students to work through the unsettling information they encounter in a social justice curriculum. Through relational perspective-taking, they are more easily able to examine and have empathy for the experiences of others, and less likely to get defensive when new concepts disrupt their existing worldviews. In a context that acknowledges the relational connections in our shared experience, criticality becomes an essential aspect of caring about someone or something larger than ourselves. When students are able to take curriculum further by applying it in real settings, such as when deconstructing course practice together or through field experiences, they may also be better able to attach relational emotions to what were previously disembodied concepts. Relational care therefore supports students' learning of social justice content that can prepare them to act with greater empathy and compassion for their own students.

22.4.3   Social Justice Curriculum

Alleviating oppression for those most marginalized by existing systems requires not only a curriculum that explores evidence of structural injustices; it also means a pedagogy and curriculum that helps students understand how relational disconnection and uncritical acceptance of structural limitations create the contexts for such injustice to thrive. For example, it is expected that a social justice curriculum will explore topics such as unequal school funding or the disproportionate impacts of high-stakes testing reforms on students of color and their schools (Au, 2009). It is less common to examine how, in some schools focused on raising test scores, underserved students' behavior is strictly modified to the point that they are conditioned not to speak unless spoken to (Ben-Porath, 2013), which inhibits their abilities to socialize and form supportive peer and teacher–student relationships. It is also unlikely that the usual curriculum would study why Latinx students feel uncared for in their "subtractive" educational experiences (Valenzuela, 1999), or how students of color are disproportionately more likely to receive exclusionary discipline (Office for Civil Rights, 2016), removing them from problem situations rather than teaching them to work through these situations in relationship with others. When teacher education students can

compare these forms of relational exclusion and disconnection with their own experiences in higher-achieving schools – where many of my own students report enjoying many more social freedoms, feeling cared for by their teachers, and having more opportunity to safely express themselves – this becomes a relational-cultural social justice curriculum.

Similarly, not all social justice curriculums foreground questioning and challenging dominant norms as does a critical pedagogy curriculum, which illustrates another unique and transformative overlap accomplished through CCI. For example, in this curriculum, students read articles that argue against traditional grading, are asked to consider alternative explanations for "problem" student behaviors, watch a film in which students and teachers take to the streets to protest unjust education policies, and are even invited to challenge their instructors and request alternative curriculum or assignments. These types of content and activities connect knowledge to action, making dissent and thinking outside the box the new norm. By seeing and experiencing the opposite of complacency, students are better able to understand how complacency can perpetuate injustice. In a less critical social justice curricula, readings center on facts and figures, assignments still come with strict rubrics, and students will automatically lose points for failing to live up to various measures of surveillance. A critical pedagogy curriculum clearly emphasizes personal empowerment and responsibility, remaining constantly critical and reflective, as well as acting on knowledge toward positive social change.

22.5   Catalytic Outcomes of this Educational Action Research

As previously mentioned, catalytic validity is an important determiner of rigor in an action research inquiry like this one. "All involved in the research should deepen their understanding of the social reality under study and should be moved to some action to change it (or to reaffirm their support of it)" (Anderson et al., 2007, p. 42). Students' catalytic experiences were evidenced by their expanding comprehension of educational inequity, blossoming trust in their own knowledge, and growing consciousness of their power to act as advocates and agents of change for their students. I also experienced "spiraling changes" in understanding (p. 42), as a practitioner and a researcher, across these several action research cycles. One of the most personally meaningful discoveries in the fifth cycle was that I could trust myself. Like so many neophyte academics, I often suffer from "imposter syndrome," in which I feel like I am a total fraud and at any minute my students will find out that I have no idea what I am doing or talking about. As a novice instructor with no formal training as a teacher, I often felt not so different from my students who were just beginning their own teacher training. Students, however, repeatedly commented on my expertise and their trust in my knowledge and practices. While I had previously been aware of these competing perspectives in the data, through the comprehensive analysis, I was finally able to understand the factors that led students to see me as an expert – extensive content knowledge, passion for my subject and for student

learning, reflexive adaptation of curriculum and activities, substantial instructive feedback on their assignments, and transparent debriefing of my own actions for their benefit and understanding. I worked very hard to know and do and be all the things they saw me to be, and by deconstructing, examining, relating, and weighing all this evidence, I was able to see it too.

While I have always expended much energy making sure my students trusted themselves and felt themselves capable and their ideas worthwhile, I had neglected to show the same trust, compassion, and respect for myself. I planned to do so, and I thought I tried to do so; yet, looking back, I actually still failed in this regard. Likewise, my stance as a "tempered radical" (Meyerson, 2001), employing what felt like "guerilla" tactics (Ellingson, 2013) under the radar of a larger education system based in surveillance reform, made me feel especially vulnerable and uneasy for most of the time I spent doing this study. The fifth cycle analysis helped counteract the debilitating worry and self-doubt that I confronted as a beginning instructor and helped me see both the strengths and the challenges in my teaching. After studying the evidence of my practices and student responses so closely, I now see myself as a knowledgeable and skilled practitioner, in addition to remaining a fallible and constantly learning one, which also strengthens my resolve to continue doing this work.

22.6 Transformative Teacher Education Research

For all the reasons I have articulated, I believe the methodological considerations in this study have especially upheld my CCI stance and offer important implications for the contemporary field of education research geared toward social justice and change. Responding to the culture of evidence in education at large, which, from an anti-oppressive perspective, places too much emphasis on neutrality, control, quantifiable measurement, and standardization, my counter-positivist stance sees teaching and research as participatory, political, contextual, sometimes messy, and always complex. Here, I briefly discuss how my study contributes to one particular call for research in teacher education that I believe is important when such research is undertaken with a goal of positive and transformational social change.

In their review of current teacher education research and trends, Cochran-Smith and Villegas (2015) make recommendations for future research directions that keep up with teacher quality mandates in education reform, ideas about learning in a knowledge society, and increasing educational diversity and disparities. In several ways, my project falls within the types of teacher education research that they say is already prolific – smaller scale, context-specific studies based in our own settings, and research that examines teacher learning or formation of attitudes, but is not longitudinal enough to assess their outcomes on their future students' learning. I agree that there is much future work I might do in these regards.

What is noteworthy here is that Cochran-Smith and Villegas (2015) also found few studies that "completely rejected the neoliberal agenda and directly challenged its tenets," with the majority of studies instead situated in a sort of middle

ground (p. 391). They hold that work not expressly opposing the neoliberal agenda is "not sufficiently powerful to substantially challenge the material conditions and social relations that reproduce inequalities and profoundly influence teaching/learning" (p. 391). By their definition, my study is one of those few that clearly reject this agenda, meeting criteria for research that seeks to transform our entire perspective on why and how we do education research.

> By "completely" rejecting and challenging the dominant agenda, we mean studies that assume that teaching and schooling are political, that schools and teachers are complicit in the reproduction of inequalities, and that achieving educational equity would require not simply providing access to educational opportunities but also interrogating how current institutional arrangements and existing social and material relations influence who does and does not have access in the first place. (p. 391)

Research that aligns with such a stance should be open and transparent about this aim, and perhaps part of the reason Cochran-Smith and Villegas did not find more of it is because in the current academic milieu, we are still pressured to tone down or silence our dissenting voices in order to have any chance of forwarding our ideas and objectives for our work (or even making a living).

I know I risk alienating my more temperate colleagues through what could be considered too much transparency with my true feelings and positions on education and research. Like other radical scholars, I believe reining this in can quickly deflate the passion necessary to keep fighting for what we know is good and right. It also privileges certain white, masculine, middle-class ways of knowing and showing knowledge that discount the importance of the emotions we connect to ideas and actions in favor of detached logic and reasoning. In our theoretical orientations as activist scholars, as well as our actual lived experiences, we know that emotion and reason are equally relevant and important to this work. "When we separate our thoughts from our emotions, we retain the capacity to solve logical problems but lose the ability to register experience and navigate the human social world" (Gilligan, 2014, p. 89).

As a tempered radical, I do wish to be heard rather than foreclose important dialogue by turning listeners off to my message before it is shared, but I cannot do this at the expense of my academic "soul." Scholars whom I admire do not hide their radical aims and perspectives, but embrace and use them to drive their scholarship, which, not coincidentally, is much more interesting and compelling as a result. I would also venture to point out that many of these scholars are men, for whom it is still more socially acceptable to speak frankly and have strong opinions, and who are more likely to hold onto an audience when they do. In a field that is also still dominated at the higher levels by men while a majority workforce of lower-paid and less powerful women remain at the mercy of these men's decisions,[3] this is particularly salient. Thankfully, I have had the privilege of learning and working with remarkably strong women scholars who embody a caring, critical, justice orientation throughout their work, giving me hope and the will to keep striving.

22.7 Action and Sustainable Change

Immediate action and sustainable change for and/or on behalf of those most directly impacted by a project are important requisites for action research. Because this was part of a practitioner inquiry, directly studying my practice and across ongoing cycles of this practice, action was an implicit part of the study. The first four cycles of inquiry embodied a constant spiral of action, reflection, improved action, reflection, and so on in order to continually improve my various content, activities, assignments, policies, and other pedagogy and processes. This action was immediate and sustainable; that is, I frequently implemented changes at the time, those changes contributed to improved practice over time, and this research will continue to influence my future practice, and perhaps other teacher educators' practice. In the fifth cycle, the action I have taken is the dissemination of my findings through publication in hopes of influencing scholarly discussions of what it means to educate teachers for emancipatory social justice. As Cochran-Smith and Lytle (2009) convey, "the scholarship of teaching and learning should be public, accessible to critique by others, and exchangeable in the professional community" (p. 40). While this was a study of my practice for the sake of my own improvement and ensuring my students the best possible learning experience, many of my findings may be adaptable and transferable for other teacher educators in their own settings.

For student participants in this study, their participatory projects were a way of taking action toward sustainable change; however, the actual action occurred more on their behalf through my subsequent work than it was actually implemented by them. Certainly, students' contributions were part of why and how these changes came about, and they directly benefitted from the changes (as will my future students); nevertheless, these were still somewhat passive actions on their part. While I believe students left the course more committed to educational justice and supporting all types of learners, and gained important capacities that should help them act more knowledgeably and purposefully in this direction, certain findings suggest that they are still underprepared to actually act as change agents beyond classrooms. A few students retained the stance that teachers should remain neutral when it comes to taking more political forms of action on behalf of their students, and I believe I could have done more or better here, and will use this information to alter my future pedagogy and curriculum to more prominently support students' ability to enact more public and political forms of activism and teacher dissent. While we did implement changes based on student research and feedback within our course, we did not do enough to take an activist approach beyond our classroom community. The best action research proposes or implements actual solutions; it also attempts to draw attention from administrators and policymakers to the important issues arising from the research. The optimal time to have done this with students would have been during their photovoice project; however, because I had so much I was required to cover and barely enough time/energy to cover it with any depth in the first place, this remained beyond the scope of our work together. I believe there must be ways to better direct our attention in this outward direction in my future practice with students.

A further action coming out of this study is documenting how this knowledge can contribute directly to this university's teacher education program. Coming into this course, my predecessors had already carefully crafted some of the most forward-thinking and social-justice-minded aspects of the policies, content, and assignments, such as the more successful readings, reflective journal assignments, and service-learning field experiences, and giving instructors the freedom to translate requirements to suit our teaching styles. Other instructors I've seen hired to teach this course also tend to be especially passionate and innovative. They have and continue to exemplify many of the same aims as I have through CCI, though each does so in personalized ways. Who we hire and the resources we provide them, then, largely impact the successful implementation of a social justice mission.

A related concern in social justice teaching and research is that what we do is possibly too unique to the individual instructors and students involved, and therefore may never be fully scalable. While I agree that my enactment of CCI and others' similar approaches may not be purely replicable – nor do I think they should they be, despite current education trajectories – I do believe the overall matching of our means with our ends, carefully and clearly articulating the assumptions underlying these actions, is a scalable and teachable habit. While I make particular choices and have certain personal characteristics that influence my practice, and my students represent a limited sector of the teacher education student population, I believe it is the overall consciousness, caring, and purposeful action that are replicable, in whatever individualized ways they manifest, and modeling these does exert a sustainable influence on the field of teacher education for social justice.

22.8 Impact of Action Research on Personal and Professional Practice

When I originally entered my graduate degree program in educational and community-based action research, I did not know much about educational research, but I knew what I thought education should be. Because most human activity is inherently social and contextual, I believed education should contribute to both individual and collective flourishing – it should foster curiosity, innovation, and personal growth, as well as the ability to appreciate, support, and collaborate with diverse others toward a common good.

Through action research, I learned how to honor life's complexity and prioritize the *humanity* that should be at the center of knowledge building, which to me seemed too often overlooked in mainstream education research and policy. My training nourished in me a critical constructivist researcher stance, which recognizes the interplay between experiences, assumptions, relationships, and contexts. Additionally, by studying methods that invited multiple stakeholders into the knowledge production process, I began to understand the role of power in research. I saw how both research and formal education could actually harm certain individuals if it failed to account for the historical, political, and social inequities they had experienced and continued to experience. In all my research

since, I have tried to foreground previously marginalized voices and underrepresented causes, while working toward positive and sustainable social change.

The reflexive nature of action research, and learning its methods from many inspiring action researcher-practitioners, has also contributed to my ability to continually grow as an educator. The action research cycles of reflection and action have become second nature as I persistently work to improve my teaching and students' experience. In so doing, I also demonstrate an inquiry stance that I hope they will adopt and take into their own teaching, not only to improve their classroom practice, but to help them question norms and become better advocates for their most vulnerable students.

Overall, the emancipatory tenets of action research have greatly influenced both my personal standpoints and my professional practice. My resulting commitments to inclusivity, diversity, critical consciousness, and relational awareness have permeated my inquiries as a researcher, my academic endeavors as a criticalist, and my contributions as a citizen with my own unique positionalities in a global community. In short, and as exemplified in this study, action research has been essential to my ability to uphold and enact my personal and professional ideals.

22.9 Conclusion and an Invitation

This study of CCI was very inward-looking and context-specific, focusing on understanding and improving my practice in my own setting of an urban, Midwestern teacher education program with a social justice mission (however varied in its actual implementation of this mission). While I have contemplated future directions I might take this research, those in the larger field might also consider implications for their own work. I propose that practitioners consider the local conditions and student populations with which their own teacher candidates will most likely end up working and seek ways to model what those specific students will most need from their teachers. I challenge educators with social justice values and aims similar to mine to consider their own practices in teacher education, examining whether and how their means align with their ends. I hope that those teachers and researchers who feel as I do, but who may have been intimidated by currently dominant ideologies into hiding or silencing these essential parts of themselves, will be emboldened to join me in standing up for what we believe is right and good. As educators, it is our privilege to create opportunities and alternatives so that all students have a chance to reach their individual potential as well as thrive within, contribute to, and harmoniously interact as equals in a more enlightened and humane world.

Notes

1 I borrow the phrase "The function of freedom is to free somebody else" from Toni Morrison (1979), who, in addressing a graduating class of college women, implored them "not to participate in the oppression of your sisters … You are moving in the direction of freedom and the function of freedom is to free

somebody else" (p. 42). Rather than use our power to maintain the status quo, teachers, teacher educators, and education researchers are likewise in prime positions to advocate on behalf of those who have been educationally marginalized.

2 This study was submitted to my institution's Institutional Research Board and exempted from further oversight; however, I chose to ask participants for their written consent.

3 Administrators and others with decision-making capacity are overwhelmingly white, middle- or upper-class, and male (Castagno, 2014; Matias, 2016), another failure of adequate representation for racial minority, low socio-economic status, and other non-privileged students, but also a failure in regards to gender equity, considering that in 2012, 69% of the full-time K-12 teaching workforce was female (US Equal Employment Opportunity Commission, 2012).

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23

Practitioner Action Research in an Urban STEM High School
Douglas M. Stevens

Hughes STEM High School, located in Cincinnati, Ohio, and directly across the street from the University of Cincinnati, is a unique high school, relying heavily upon democratically oriented teacher leadership and employing a distributed model of leadership (Spillane, 2006). Rooted in a collaborative culture, a cohort of teachers from the previous school on the campus received a grant with a partner from the University of Cincinnati that allowed them to leave the classroom for one academic year to design and plan a new high school that would have a focus on science, technology, engineering, and mathematics (STEM), while also addressing the social and emotional needs of students (Rhodes, Stevens, & Hemmings, 2011). I was recruited by this planning team to teach at Hughes when it reopened in 2009 as one of the first STEM high schools in Ohio. Shortly thereafter, I entered the doctoral program at the University of Cincinnati and began to discover how the practices I had used during my previous 20 years to research and improve my own practice as an English teacher were actually part of a formalized field of inquiry – practitioner action research. My dissertation led me to work with my colleagues at Hughes to define and describe the collaborative and relational culture that we created together.

23.1   An Exploration and Definition of Relational Culture Among Faculty

The idea to investigate the relational culture among faculty grew out of the existence of an explicitly formulated template for student culture within Hughes designed by the planning team that designed the new STEM school. However, I was curious as to the relationship between the explicit model for student culture and the implicit culture among faculty that developed.

23.1.1 Utilizing Structured Ethical Reflection as a Process Guide

Within many organizations and institutions, including my own, little formal oversight is provided to those conducting action research. Because of my dual positions at the University of Cincinnati and Hughes STEM High School, I was required to submit an Institutional Research Board (IRB) proposal to each organization to gain approval for my study on relational culture. However, both organizations found that the action research project did not constitute what they deemed human subject research and, therefore, the work was approved with no further oversight. Nevertheless, these kinds of determinations do not exempt researchers from behaving in an ethical manner. In order to have a formal process in place to ensure ethical behavior and conditions, practitioner action researchers must therefore develop their own set of guidelines.

Structured Ethical Reflection (SER) provides researchers with a comprehensive methodology for engaging co-researchers, participants, and other stakeholders in the creation of an ethical roadmap to navigate the entire research process, from the development of research partnerships to the dissemination of findings (Brydon-Miller, 2012). The process begins with identifying between 5 and 10 relevant values which will inform the research process and listing them as row headers down the left-hand column of a blank table (see Table 23.1). The column headers across the table contain important stages in the action research process: developing partnerships, constructing research question, planning project/action, recruiting participants, collecting data/taking action, analyzing data/evaluating action, member checking, and going public (presentation and publication). The cells of the table, which represent the intersection of a value and a stage in the process, are then filled with a description of what ethical action looks like with those filters applied. For example, when respect was examined as a research value during the process of gathering data from teachers in my school, ethical behavior was described as being respectful of participants' time and providing flexibility in how and where interviews would take place. The researcher, or research team, asks what ethical behavior looks like at the intersection of each value and each stage in the process. The final result is an ethical roadmap that helps action researchers maintain an awareness of and commitment to ethical behavior from start to finish.

Selecting the values to include in the SER process for the relational culture study meant seeking input from a purposeful variety of stakeholders within the school. My own theoretical foundation in feminism and hermeneutic theory sensitized me to the fact that much knowledge of the relational culture would be situated in far-reaching areas of the school, both physically and virtually. Hughes has six grade levels, ranging from seventh graders to seniors, and the physical layout of these grades creates a kind of silo effect, with staff members working in relatively close proximity to one another, and yet having very little daily contact between grade levels. A comprehensive description of the school's relational culture among staff would necessitate gathering data from each grade level, so I sought to engage someone from each grade level in generating the values for the SER grid.

Table 23.1 Template used to guide the process of structured ethical reflection.

Values	Developing partnerships	Constructing research question	Planning project/action	Recruiting participants	Collecting data/ taking action	Analyzing data/ evaluating action	Member checking	Going public (presentation and publication)

Thinking outside the box was necessary in completing the SER process and filling in the cells of the grid to complete a finished ethical roadmap. Ideally, I would have liked to have held one brainstorming session with all stakeholders. This was not possible because of the many demands on teacher time, so I therefore contacted teachers individually, searching for small blocks of time to discuss the values and ethics surrounding the study. While this was not a particularly efficient process, it did not excessively burden teachers with additional meeting time after the school day. The result was quite effective, and I printed enlarged copies of the final product, posting them on the wall of my classroom and office to provide a visual reminder of the ethical foundations of the study. I also carried a laminated copy with me when I was meeting with interview participants for both the interviews and member checking sessions.

23.1.2   Theoretical Foundations Supporting Practitioner Action Research

Embarking on an investigation of the relational culture among staff in an urban high school required a strong grounding in a theoretical base that was aligned with both the nature of the study itself and the research site. Three frameworks stood out as bringing complementary insight to this research: feminism, hermeneutic theory, and relational-cultural theory (RCT). In general, feminist theory supported the idea that the relationships between colleagues in a work environment, and schools in particular, were worthy of study and offered some methodological practices for conducting such research. Hermeneutics, with its roots in the study of historic biblical and literary texts, offered a well-honed approach to understanding interview transcripts in the social and cultural context of the school and educators in modern society. RCT examines the social implications of psychological theories related to human relationships, including a focus on growth-fostering relationships as well as disconnection. Together, these three theoretical stances provide the necessary framework for understanding how staff work to support students and each other in an urban high school.

23.1.2.1   Feminism and the ethic of care

The current climate in public schools, especially in low-performing urban schools, makes for a challenging place for teachers to establish growth-fostering relationships with both students and colleagues (Hartling & Sparks, 2008). When teacher evaluations are based directly on the results of state-mandated testing, this can result in an adversarial relationship between teachers and their students who perform poorly on standardized tests, and between teachers and their peers who have unequal teaching assignments in the school. Noddings (1992) was one of the first feminist researchers who fought against what had been described 20 years prior as "methodolatry," or an unhealthy reliance upon strict instructional methods and their quantifiable results (Daly, 1973, as cited in Noddings, 1992).

Often missing in schools where staff feel pressured to produce better test scores as a result of failing grades on their state report cards is a focus on caring and nurturing. Noddings (1992) argues that in order for students to work well with their teachers and for teachers to work well with each other, there must first

be present an ethic of care that underlies all interaction. This ethic of care begins with the self, first and foremost, and then extends out from the individual. While the feminist ethic of care was first used by Noddings to refer to relationships between teachers and students, my research has shown that the same care and attention must be afforded to colleagues and co-workers as well (Stevens, 2014). Unfortunately, teacher and school evaluations represent a power structure that simply does not acknowledge or place value upon human relationships in organizations (Hartling & Sparks, 2008).

The feminist ethic of care emanates from the lives and experiences of women theorists, whose research elevated the relational experiences of women to stand in contrast to the dominant patriarchal cultural norms of coercion, oppression, and hierarchy (Gilligan, 2011; Harding, 1991; Hesse-Biber, 2012). While hierarchical power structures elevate discrete knowledge, independence, and individualism, feminist theory is rooted in an empathic stance, encompassing the values of mutual empathy and collaboration, both critical in the field of education (Hartling & Sparks, 2008).

Other researchers in education have also relied upon feminist theory in their work. Raider-Roth (2005) interviewed elementary school students regarding innovative self-assessment practices, finding that while students would provide their teachers with the knowledge they thought was expected of them, there was still a deeper, untapped layer the students kept protectively hidden. While Carol Gilligan's (1982) work has shown us that girls subjugate knowledge and aspects of themselves, Niobe Way's (2011) examination of boys' friendships also revealed similar traits and that traditional researchers had written a narrative of both groups that was both incomplete and inaccurate. By utilizing the perspective that feminist theory offers, my study of staff relationships was able to reveal and amplify the marginalized voices of educators with respect to their relational practices and values.

23.1.2.2   Hermeneutic theory and contextualized knowledge

The practice of hermeneutics traces back as far as the seventeenth century as a way to better understand the meaning of specific texts (Byrne, 2001). Our understanding of the world around us, and specifically our ability to communicate that understanding, is largely dependent on the use of words. In traditional Greek mythology, Hermes, after whom hermeneutics was named, was tasked with carrying messages between the humans and the gods. Today, hermeneutic theory functions as a "bringing of something out of one world and into another" (Gadamer, 2006, p. 29). The practice of hermeneutics is best conceptualized as more an art than a science. Whether in the form of a historic document, biblical text, or interview transcript, the meaning of words is rooted in a specific social, cultural, and historic context. Thus, the interpretation of words, including explicit and implicit meaning, involves understanding them through those lenses.

The concept of positionality is central both to Gadamer's treatment of classical and philosophical hermeneutics and to Griffiths' advocacy for two primary goals of feminism – the taking of a stance from which to advocate for social justice and the equality of women's voices and narratives (Gadamer, 1975, 1989, 2006;

Griffiths, 1995). Positionality can include a text's location in chronologic time, but it can also be thought of as being located in a geographic or social location, or one of many individual subjectivities and constructions, such as gender, age, race, class, sexual orientation, ethnicity, or nationality, among others (Hesse-Biber, 2012).

When considering the multiple positionalities that a text might hold, it is helpful to look at the work of Holzer (2007). Pulling from the traditions of Ricoeur, Gadamer, and Heidegger, Holzer argues for a process referred to as "horizontalization," which seeks to synthesize the multiple perspectives that one text holds. "Our horizon indicates that, although we are always situated in historical and cultural contexts, in and through our pre-understandings, we are capable of moving ourselves in this situation and thus changing or even expanding our horizons" (Holzer, 2007, p. 41). The meaning of any text is created based on the positionality of both the reader and the author, and through this horizontalization process Holzer describes. Both researchers and readers of research must therefore be aware of their own subjectivities and listen with open minds, empowering research participants to exercise control over their own narrative.

23.1.2.3 Relational-cultural theory

Practitioners in the field of RCT have worked assiduously to establish a foundation for the central value they place on human relationships. Tronick (1989, 2007) studied the relationships between infants and their mothers, discovering a close bond that was tied directly to a sense of mutuality, referred to as the mutual regulation model (MRM). Profound developmental issues arose in children whose mothers did not form a bond that was rooted in mutuality. This MRM explains that when infants cannot depend on their mother as a reliable source of care, a deep disconnect develops that can progress into both psychological and physical problems. More recently, Banks's work in neurobiology has demonstrated that humans are hard-wired to connect and that relationships demonstrating a strong sense of mutuality can be healing in nature (Banks, 2015). Therefore, the study and understanding of these relationships is valuable in establishing and maintaining effective workplaces.

Raider-Roth, Stieha, and Hensley (2012) utilized an RCT approach in their examination of a professional development seminar for educators. They describe both connections and disconnections between participants. Their findings related to disconnections aligned with the work of Gilligan (2002), in that they were rooted in educators' desires to remain in relationship with colleagues while protecting some aspect of self. Most disconnections were related to lack of trust. However, it is important to note that instances of repair to those relationships centered on the ability of individuals to voice their feelings and be heard by others.

A large portion of current research in RCT is grounded in the work of a cadre of psychologists at the Stone Center, founded in 1981 at Wellesley College. The Stone Center research includes the work of Jean Baker-Miller, Judith Jordan, Irene Stiver, Janet Surrey, Maureen Walker, and Amy Banks, among others. Many of the tools for dissecting the nuances of relationships among staff exist because of the collaborative work of these women. These tools include the central

qualities of authenticity, mutuality, mutual empathy, and mutual empowerment (Miller & Stiver, 1997).

23.1.3 Creating a Working Definition and Description of Relational Culture

Central to the nature and identity of action research is the commitment change as a result of engaging in the research process (Brydon-Miller & Coghlan, 2014). When I began the study of relational culture at Hughes, my goal was to generate a description of this culture. What I learned by the completion of the study was that this effort provided the opportunity for many stakeholders, who would not otherwise have had the time or opportunity, to be active participants in the research process and to ultimately feel similarly responsible for the climate in the school. The sections that follow define and describe the values that form the foundation of how staff members at Hughes work with and relate to one another.

23.1.3.1 Mutual respect in a collaborative environment

The two main sources of data for the study were a Group-Level Assessment (GLA) and individual, semi-structured interviews with staff members. The one theme that resounded more than any other was not just respect, but mutual respect. Being a practitioner in the school conducting insider action research, I worked to maintain an ongoing dialogue about the values emerging, both with interview participants and with the larger staff as part of an interpretive community (Cochran-Smith & Lytle, 2009; Coghlan, 2007). Many were eager to share both instances where they experienced or provided mutual respect and situations where they felt that a sense of mutual respect was not present.

During the GLA, staff members shared attributes related to mutual respect: valuing diversity, focusing on the Golden Rule, being a good listener, professionalism, willingness to engage in difficult conversations, mutuality, and integrity. Digging deeper into how these were actualized required a thorough evaluation of what participants shared during the interviews, most of which were about an hour in length. Drawing upon feminist qualitative methodologies, I utilized the Listening Guide, a voice-centered approach to transcript analysis rooted in RCT (Gilligan et al., 2003). This process involves analyzing not only what a participant says, but also what is muted or hidden, with the researcher listening "in stereo, receiving both the dominant and the muted channels clearly and tuning into them carefully to understand the relationship between them" (Anderson & Jack, 1991, p. 11).

While on the most basic level, mutual respect simply involves the concept of respect being reflected between two individuals, the study revealed some interesting nuances. First, a sense of mutuality doesn't just exist between individuals, but participants also described it between institutions or organizations and individuals or groups. When the administration, based on the directives of the school district, assigned some teachers twice as many students as others, those with more students felt disrespected by the school district, but not by individual administrators with whom they had strong, positive relationships.

Teacher participation in the hiring process for new staff members helped to increase the prevalence of mutual respect. Lucille (all participant names are self-selected pseudonyms) described it as "getting the right people on the bus." Over half of participants shared stories of feeling disrespected. However, none of the individuals by whom they felt disrespected had been hired through the collaborative interview process. Most teachers at Hughes are hired via an interview by an interdisciplinary team of teachers across grade levels and academic disciplines. Some, though, are placed directly by the district administration after having been surplussed from other schools in the district for various reasons. It appeared that the hiring committees had been fairly successful in screening for individuals who demonstrated mutual respect, presumably because the interview process requires simulated collaborative planning that revealed a potential new hire's relational skill set.

23.1.3.2 Integrity and trust: "I could depend on them …"

One of the most challenging aspects of this study was trying to understand the participants' discussion of the concepts of integrity and trust. Could they be conceptualized as two separate values, or were they two different embodiments of the same notion? After much thought and discussion with both my community of inquiry at Hughes and the University of Cincinnati, the consensus was, at least in the context of this study, the two values were so intertwined they should be discussed together. Integrity is the underlying personal value that guides individuals, or even organizations, to behave and treat others in an ethical manner. Trust is the feeling, sentiment, or emotion that one feels toward an individual or organization as a result of that individual or organization behaving with a sense of integrity. Essentially, *I trust you because you act with integrity*.

Trust, as a relational value, with regards to both individuals and organizations, is a well-researched topic in the field of education (Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Meier, 2002; Raider-Roth, 2005; Tschannen-Moran, 2004; Watson & Ecken, 2003). Early research on trust in schools focused on school climate, and has since expanded to include more comprehensive analyses of the impact an organization's culture, norms, and values have on trust both interpersonally and for the organization itself. The importance of integrity becomes evident when we examine the definition of trust for an individual within an organization, which is "one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent" (Tschannen-Moran, 2004, p. 17).

Since it is this trust that provides the emotional security that forms the basis of risk-taking and allowing oneself to be vulnerable, other values are also at play in collegial relationships, in particular mutual respect and good communication. Raider-Roth explains, "While discussing trust, we see that it is lived out in the context of interpersonal relationships. Rather than viewing one concept as the cause of the other, we can see how trust and relationship are inextricably linked, as mutually dependent" (Raider-Roth, 2005, p. 35). Unsurprisingly, time was a critical factor in the ability of staff members to develop, maintain, and repair relational trust. Schools increasingly micromanage teacher time in the workplace. Staff members reported inadequate collaborative meeting time as a challenge to

getting to know new employees, and trust is less likely to exist between two individuals who know little of each other.

23.1.3.3 Good communication: the foundation

All participants, during both the GLA and interviews, identified good communication as a critical relational value that impacted their ability to both trust and respect colleagues. Inclusion in effective pathways of communication increased trust and mutual respect while exclusion, whether intention or unintentional, eroded these same values. However, a fine line exists between providing members of any organization with adequate useful information and overwhelming them with it. When staff felt overwhelmed with information, they shut down. So how is optimal communication achieved?

In the digital age in which we live, one characteristic of professional communication is its nature as active or passive. The two extremes described by interviewees Lynda, Erin, and Lisa involve direct electronic mail versus digital archives. In the first case, these three teachers described direct electronic mail to individuals as being the most reliable way to communicate professionally, with documentation of the communication, when and to whom it was sent, and when or if it was opened. Unfortunately, the organizational structure of Hughes creates a situation where it is sometimes difficult to reach subgroups of staff, and so communication is sent to the entire staff, cluttering up inboxes with unnecessary information. The other extreme is what we refer to as "passive" communication. Instead of meeting agendas, minutes, and other information being sent directly, it is often stored online in digital archives. Most staff, though, reported multiple instances of frustration with either locating needed information within the online cloud-based archives, or even knowing it was there in the first place.

As with some of the previous values discussed, good face-to-face communication is also guided by elements of ancillary values. Lynda described the need to have difficult conversations with colleagues and how her ability to do so depended on whether there was a sense of mutual respect and trust with that person. She struggled with one colleague in particular whom she had actually interviewed before recommending for employment. During the interview, this teacher presented himself in a way that seemed to be clearly aligned with the values of the school. But once employed, she saw little evidence of integrity. This teacher would regularly promise to complete tasks but seldom followed through. Lynda, still feeling some sense of connection with this teacher as a result of her participation on the interview team, engaged in some of what she called "real talk" in which she shared her initial expectations of this teacher and the gap between those expectations and current performance.

23.1.3.4 Open-mindedness: more than flexibility

Although Hughes has traditional, hierarchical leadership formally in place resulting from being part of a large urban school district, decision-making and leadership is shared widely among teachers and other staff members. It is no surprise that staff, during the GLA and interviews, identified open-mindedness as a critical value underlying the relational culture in the school. But a traditional take on the meaning of open-mindedness doesn't fully describe this value as it relates to

staff culture. Open-mindedness, as a stand-alone concept, could be interpreted in a passive sense, with staff merely open to the ideas of others and flexible when those ideas include changing the schedule. Rather, staff members described instances in which their colleagues wholeheartedly embraced change, particularly when stepping outside the box and doing something innovative that would directly benefit students.

Charles is a physics teacher with a strong belief in interactive science activities. His students regularly work in small groups to apply physics concepts, solving problems he presents to them. Hughes is an architectural model in Cincinnati, with an imposing presence in the community as its central tower rises far above all neighboring buildings. Charles decided to conduct an egg-drop project, with students designing their own protective structures, containing a raw egg, which would be dropped from the tower onto the sidewalk below. For the culminating event, Charles needed students for a period of time longer than his class and worked to negotiate this with his students' math teacher. Rather than simply allowing students to miss her class, Nicole, the math teacher, collaborated by designing accompanying lessons and offering up whatever additional support for the project Charles needed, including getting volunteers to assist. In a more traditional reading of open-mindedness or flexibility, Nicole would have simply agreed to allow the students to miss her class. Instead, because the relationship she had with Charles included mutual respect, trust, and good communication, Nicole was a full collaborator on the project, further strengthening her relationship with Charles.

23.1.3.5   Reflection: making the time

The most compelling personal anecdote from the interviews came from Joe, a veteran social studies teacher, team leader, and department chair. For Joe, the most important value was integrity – do what you say you are going to do and do not agree to do things that you know you will not. Having worked on a team with Joe for one year, I knew this to be true. He respected and supported whatever decisions you made, even if he did not agree with them, as long as you followed through. The second most important value for Joe was reflection. Joe has three young children. Family time is important to him, but he colorfully illustrated why taking time for reflection was so important and represented another core value. In the movie *Groundhog Day*, the main character becomes stuck in a time loop, waking up with every new morning being February 2nd. Joe argued that in the absence of reflection, as a practice, many of our efforts in the school become like the situation in the movie, frozen in time and never improving.

Other staff did not describe reflection in isolation, but a practice of reflection in collaboration with others. Three school-wide events emerged that had become prime examples of collaborative reflection in particular. Summer Bridge is a program Hughes developed to help transition incoming elementary students into the junior high and high school environments and expectations. Student-led conferences are twice-yearly opportunities for parents to visit the school and hold an academic progress conference about their child, conducted by their child. Intersession is a week-long experiential learning program that partners

each teacher with 15 students to interface with community partners for real-world opportunities for one week every year.

These three events sapped the energy of all involved, and once they had concluded, most staff eagerly returned to their normal routines. Over time, though, staff members noticed that we kept doing the same things, getting the same results, and these events weren't really growing or maturing – in large part because everyone was so exhausted from them. But in the absence of collaborative reflection that provides the fodder for ongoing improvement, we were indeed in a Groundhog Day situation. Teacher leaders who were responsible for these activities had already been archiving documents, but there was no review or reflection geared toward future planning. As a result of the growing awareness of the importance of collaborative reflection, teachers began to lobby the administration to budget sanctioned, paid time for planning teams to survey staff, collect and organize the data, and make recommendations for future changes and improvements.

In the case of student-led conferences, we discovered that students lacked a clear understanding of what the process, conducted successfully, actually looked like. As a solution, we recorded a video of a student conducting the conference with her parents and made it available to the entire school, breaking the Groundhog Day cycle of poor quality and levels of participation for this event. Also importantly, the time used for the collaborative reflective and evaluative efforts by these groups of teachers facilitated the ongoing development and strengthening of their relationships with each other.

23.2   Implications of an Action Research Stance for a Veteran Urban Educator

With the goals of action research including the democratic engagement of stakeholders for the purpose of empowering individuals and improving organizational outcomes, an action research stance impacts my two primary roles: as classroom teacher and educational leader.

23.2.1   Practitioner Action Research for Classroom Instruction

Despite the litany of data that educators have today regarding student achievement and performance, as a teacher, I still struggle each year to better understand the individual needs of my students as well as how the collective needs of each class drive my instructional practices. Fortunately, by utilizing action research techniques, I have been able to better meet my students and help them grow academically, socially, and emotionally.

23.2.1.1   Group-level assessments for understanding instructional issues
GLAs are a flexible, structured, and innovative approach to problem identification and data collection (Vaughn & Lohmueller, 1998). Qualitative research data can be difficult to collect from larger groups of people whose time and availability

may be difficult for a researcher to obtain. During a GLA, small to medium-sized groups of stakeholders can participate in a research process by coming together, focusing on an issue, identifying problems, and providing detailed information about the nature of a problem or potential directions to take in making progress toward a solution. While one might conceive of a GLA as merely a variation on a focus group, the structure and management of the GLA is designed to empower participants to own the process and outcomes, in a way that merely answering questions from a moderator would not achieve.

Recently, I worked with the athletic director at Hughes to design and conduct an evaluation of the wrap-around support services provided to student athletes. Hughes, serving a population of students, 100% of whom live below the poverty level, works to meet the academic, social, emotional, and physical needs of its students. The athletic director makes sure her student athletes have access to health care, a reliable food supply, and regular academic tutoring. She wanted to know how students felt about these services, which ones were most important, and what could be improved. The GLA methodology offered an opportunity to gather information from a large number of student athletes at one time.

The findings from this study were not what we expected. While as adults, we knew how important stable access to food was, the students – perhaps because of their developmental stage as teenagers – expressed little appreciation for food they received from outside, subsidized meal programs. Their overwhelming enthusiasm and appreciation was reserved for situations when a group of parents or volunteers would prepare a meal before a game and everyone would eat together. It was the relational aspect of sharing homemade meals together that they valued most.

Student athletes were also acutely aware of who attended, or didn't attend, their games, and this was a point of sadness for them. With regard to teachers, students called out a bit of perceived hypocrisy in teachers who they saw as constantly asking something from them in the classroom, but never attending any extracurricular functions. Their absence was noted. I was unable to shake the feeling that I had let my students down by not attending more athletic functions. Upon sharing these findings with colleagues, I passed on a challenge that I plan on meeting myself: attending at least one event for each extracurricular activity each school year. It's a small start, but one that I know now that my students will notice and appreciate.

23.2.1.2   A grounded theory approach to student writing assessment

Rooted in a longstanding partnership between Hughes and the University of Cincinnati, faculty and students from both institutions collaborated to develop the Grounded Theory Approach to Student Writing Assessment (GTASWA), which creates meaningful data about student writing to improve curriculum decision-making and empower students to develop goals to improve their writing. State-mandated writing assessments require extensive effort and preparation by stakeholders, but provide no feedback to improve writing or instruction. Using a modified grounded theory approach (Corbin & Strauss, 2008; Glaser & Strauss, 1967), graduate and undergraduate university students worked with high school teachers to analyze student responses to semester exam prompts in

much the same way that interview transcripts are handled in traditional grounded theory. A dataset comprised of student writing responses was analyzed through an iterative process of open coding, axial coding, and selective coding. Initially using Microsoft Office components (Access and Word), evaluation data from the writing sample was transformed into reports for teachers to adjust and modify instruction and for students to set goals for individual growth and improvement.

The development of this process for writing analysis and feedback has had a tremendous impact on my effectiveness as a writing instructor. Students crave individual feedback, which is essential in addressing student needs and fostering growth. However, amalgamating all of the typical comments that English and composition teachers write on student essays has historically been a roadblock to a smooth shift between individual feedback and whole-class instruction for, on average, groups of 30 students. I am now able to feel more confident that I am maximizing the time I have with my students to help them develop the skills in narrative, informative, and argumentative styles of writing.

23.2.2 Practitioner Action Research for Teacher Leadership

Hughes, with its distributed model of leadership, asks teachers to take on many roles beyond that of traditional instruction by participating in collaborative leadership structures. By shifting decision-making into the hands of educators who work directly with students, the school empowers teachers to perform such roles as creating a master schedule and grouping students for instruction. Learning how to do this effectively with limited resources is an arduous task, but by assuming an action research stance, we have been able to work consistently to improve our practices to better meet the needs of our students.

While the process we developed is now highly structured, we originally took a fairly traditional approach. Our school did not initially have the funding to employ guidance counselors, and we began by mechanically designing a grid structure for the master schedule that included each of the courses students would take. This part was relatively easy, compared with the challenge of addressing the individual needs of a high-poverty group of students who, on average, read five grade levels behind their suburban peers. We first allowed the student management information system to randomly assign students to classes. As the year began, problems emerged immediately.

Approximately 25% of our students have either an Individualized Education Plan (IEP) or a Section 504 plan, which means a student has not met the threshold for special education services, but must still receive educational accommodations and support. Based on the random assignment of students to classes, our intervention specialists, who provide support to these students, were unable to meet the required amount of time needed to spend with students on their caseloads.

As we later discovered, once we began conducting a deeper analysis of our students' reading levels, while the mean grade level equivalent for the entire population of ninth graders was somewhere between fourth and fifth grade, the actual range of those scores was from basal reader to high school graduate. What we saw

in the classrooms in all academic content areas, but did not understand, was a very wide array of instructional techniques fail at the whole-class level. We determined that many of the students were disengaged because, regardless of where we based our instruction and how much we differentiated it, nearly half of each class was not able to benefit from the activities we planned for them. We were asking too much or too little and providing too much scaffolding or too little.

Once we had the necessary information in one place, we were able to make informed decisions about scheduling students. This included their reading levels as determined by multiple administrations of Renaissance Learning's STAR reading assessment, attendance, grades, individual notes from the previous team leader, and special education status. The outcome was teachers received groupings of students that still had reading level ranges of four to six years, but this was a significant improvement from the random assignment that had previously been in effect. Teachers appreciated the ability to narrow the focus of their instructional approaches, resulting in a modest increase in student performance, and special education intervention specialists were able to fulfill the requirements of student IEPs and were even able to provide assistance to non-identified students without IEPs who were nevertheless struggling academically.

In the true spirit of the action research cycle of plan, do, study, and act, the ninth-grade team and our partners continue to work to improve this process. During years when we are able to structure common planning into the school day, we are able to participate in regularly scheduled, collaborative reflection on both the process and the outcomes and make adjustments to decisions as needed. For example, to better facilitate students receiving the psychological counseling services they need, we collaborated with a social service agency to locate their offices directly in the school itself. The collaborative reflection process identified the problem and generated a response to it, but new problems continue to arise and we maintain an ongoing cycle to investigate ways to address students' academic and emotional needs.

Whether in my role as a classroom teacher or as a teacher leader within school, taking an action research stance and my identity as an action researcher provide both opportunities and responsibilities. My career in education now spans three decades, and I have certainly worked in settings where teachers were not empowered. One's sense of job satisfaction and efficacy are greatly diminished in settings where innovation and problem-solving are not part of the organizational culture. Action research and the practice of it establish a framework for empowerment and ongoing improvement that support increased agency and efficacy. However, this also comes at a price as educators' roles have greatly expanded beyond the historic parameters.

In addition to the typical challenges of working in a low-income, urban school district, a culture of distributed leadership that fosters teacher empowerment means that educators find themselves spending more time establishing and maintaining partnerships with outside partners and other stakeholders. Over time, as the individuals who represent their respective organizations change, I have faced the time-consuming task of re-establishing partnerships with new partner representatives and locating new community partners when relationships unavoidably end, such as at the termination of a grant period. Collaborative

stakeholder and partner meetings are almost always held outside the school day, which therefore means grading and planning are pushed further into the evenings, weekends, and holidays.

Success as a practitioner in the field of both secondary education and action research is necessarily about finding a sense of balance. The most important tool for me has been a dedication to reflection, providing an opportunity to better understand my own feelings about these additional roles I assume. While meetings outside the school day are time-consuming, with the right partners, they can also be uplifting and the end result is more often than not an improvement in the school or classroom that makes life better for myself and my students. It takes a sense of commitment as well as both an understanding of and a belief in the nature of the action research cycle and basic democratic principles.

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24

Action Research as Professional Development

A Study of the Impact of Collaborative Analysis of Student Work
on Teacher Practice and Student Writing

Kristin Shealy

Guskey (2000) emphasized that effective professional development is an ongoing, systematic, and intentional process. Anders, Hoffman, and Duffy (2000) outlined seven common themes about effective professional development: it is intensive and extensive; includes monitoring, coaching, and/or clinical support; requires reflection; facilitates deliberation, dialogue, and negotiation; is comprised of voluntary participants; values participant choice; and promotes collaboration. Sparks (2002) described effective professional development as programs that focus on teachers' content knowledge and pedagogical skills; include opportunities for practice, research, and reflection; are embedded in educators' daily work; take place during the school day; are sustained over time; forge a sense of collegiality and collaboration among teachers and principals; and focus on solving important problems related to teaching and learning. Teacher action research can include all of the aforementioned characteristics of effective professional development. Conversely, the reasons for the failure of most professional development activities or programs are that the designs are deficit models that present a top-down, one-time, lecture approach (Guskey, 1986, 2000, 2002; Guskey &Yoon, 2009; Little, 1993), and teacher action research is an opposite construct to that type of model.

Action research in education can make a strong argument for the importance of collaborative analysis of student work (CASW) as professional development. Action research, as it relates to education, can be defined as deep inquiry into one's own practice – a systematic, intentional, and reflective study by teachers of their own classroom practice for understanding and improvement of that practice (Carr & Kemmis, 1986; Cochran-Smith & Lytle, 2009; Riel & Lepori, 2011). In addition to expanding the knowledge base for teaching in important ways (Cochran-Smith & Lytle, 1993), the process of action research has proven to be a powerful tool for teacher professional development (Zeichner, 2003). One type of supportive, collegial teacher action research is CASW, a method to help teachers analyze student work to improve instructional decisions because from improved instructional decisions can come improved student work.

24.1   Collaborative Analysis of Student Work (CASW)

CASW is rooted in work produced by Harvard's Project Zero [HPZ] (Harvard Graduate School of Education, 2014). HPZ's collaborative inquiry and assessment of student work is a process that brings teachers together to assess their students' learning and their own teaching (Blyth, Allen, & Powell, 1999). CASW is a type of collaborative inquiry. "Collaborative inquiry is the process by which colleagues gather in groups to pursue, over time, the questions about teaching and learning that group members identify as important" (Weinbaum et al., 2004, p. 2). This type of collaborative inquiry was the foundation for this study on CASW. Additionally, the CASW protocol that was used was adapted from a collaborative assessment of student work protocol from Harvard's Project Zero (Blythe et al., 1999). According to Langer, Colton, and Goff (2003), CASW can be a teacher action research method designed to help teachers analyze student work to improve instructional decisions. Langer et al. (2003) explained that "when the analysis focuses on the same students over an extended period of time, teachers make discoveries about how students construct meaning of key concepts and skills" (p. 11) and purposefully select instructional approaches, moving students ever closer to the appropriate learning outcomes. Examining student work can give teachers a glimpse into students' thinking. They can understand more readily students' assumptions and reasoning (Garet et al., 2001). "Also, examining and discussing examples of student work may help teachers develop skills in diagnosing student problems and designing lessons at an appropriate level of difficulty" (Garet et al., 2001, p. 926). For these reasons, teacher action research could be among the most effective forms of professional development.

In this study, CASW was the intervention implemented during professional development. From CASW, teachers planned their next instructional steps and gave feedback to students. CASW was a powerful method of teacher action research from which teachers garnered valuable information about their students' thinking and progress. From what is known about professional development, CASW can be effective when implemented well. "Neither training alone nor training followed by implementation was sufficient for affective change. These particular attitude and belief changes occurred only when training and implementation were combined with evidence of improved student learning" (Guskey, 2002, p. 385). CASW as professional development influenced teacher practice. As teachers became more knowledgeable about students' specific strengths and weaknesses, this influenced the feedback they provided to students, both orally during instruction and written on student work. CASW, as professional development, was evidence for teachers, supporting them to continue to refine their knowledge and hone their instruction.

24.2   Study and Findings

This study was a single-site case study. Interviews with teachers were conducted before, during, and after the CASW professional development. Observations were conducted during the CASW professional development sessions as well as

during instruction. The analysis of interviews and observations, along with student writing and teacher written feedback on student writing, allowed for an in-depth look at the case.

The study was conducted with six middle school teachers in an independent school in the Southeastern United States. While the participating teachers had attended off-campus workshops and conferences, they had not participated in collaborative, job-embedded professional development, so they participated in CASW professional development sessions at the beginning of each instructional cycle.

The protocol was used in the CASW sessions to facilitate teachers' conversations about student work. During each of the 90-minute CASW professional development sessions, two or three of the teachers were the presenting teachers, sharing their students' work for analysis, and the other teachers were the participating teachers, using the protocol to analyze the student work that was presented. As a nonparticipant observer, I did not influence the CASW professional development and did not have a part in deciding the content in order to uphold the integrity of the CASW protocol. An instructional coach facilitated the CASW professional development sessions, following the CASW protocol. Using the CASW protocol was a type of action research as professional development experience for the participating teachers.

At first, all six of the middle school English teachers volunteered to participate in the study. However, when one English teacher pulled out of the study, a social studies teacher volunteered to take her place. With the high volume of writing in the social studies curriculum, this participant was able to successfully take part in the study. Having six participants meant that the group was within the optimal range for collaborative inquiry groups, like CASW.

> There is no magic number for effective inquiry groups. By its nature, collaborative inquiry involves hearing perspectives of others and being heard. This is difficult to do in groups larger than ten; however, in groups smaller than five, there may be too few perspectives to create the rich layered discussions that inquiry groups value. (Weinbaum et al., 2004, p. 45)

The study was conducted over a 10-week period. During the first week, the teachers were interviewed for the first of three times, and student writing samples, from all students the participating teachers were currently teaching, were collected and grouped into three categories: exceeding expectations, meeting expectations, and working toward expectations. The essays were categorized in order to select one section, taught by each teacher, with the most heterogeneous mix of writers. These sections were the ones in which the classroom observations were conducted, as well as the ones where student writing was used to analyze any written teacher feedback. Also, from the categories of these initial writing samples, one piece of student writing from each category was randomly selected, for maximum variation sampling of the student writing. These pieces of student writing were the ones used in the CASW professional development and later analyzed for evidence of written teacher feedback.

This study involved three instructional cycles of CASW professional development, planning and instruction, and student writing. After the professional development, I observed instruction, allowing me to see whether any discussions from the CASW professional development sessions influenced the teacher's daily practice.

The interviews, CASW professional development sessions, and classroom observations were transcribed and coded for themes about teachers' experiences with the CASW professional development, the quality of those experiences, how those experiences may have influenced their practice, and teachers' perceptions about their instruction and student work. Both a priori template codes and inductive codes were used. A list of all code words and phrases was created, and similar codes were merged. These initial codes were used to generate categories or themes.

Document analysis was used on the student writing samples. Student writing was analyzed using an analytic model for teacher feedback. Teacher feedback, as seen on student writing, emerged as a data point used to triangulate data collected from interviews and observations.

All six participating teachers commented on the effectiveness of having the CASW be job-embedded. Teachers commented about enjoying the time to discuss facets of their work that they did not often get a chance to discuss, such as: assessment, grade-level expectations, and the appropriate level of difficulty of the curriculum. All six teachers commented on needing more time, as well as the need for greater numbers of and more frequent contact hours over the course of an entire school year for CASW.

While teacher interviews and CASW observations often focused on improving student learning outcomes and the majority of teacher comments did address subject area content, there was very little discussion about how to teach the content. With more time, the part of the CASW protocol discussing implications for teaching and learning might be able to be explored more fully to encourage more conversations about how to teach the subject area content. One of the more outspoken participants said she felt that talking about the "so what" of it all should be added to the protocol; she consistently commented throughout the study that while CASW had made her more aware of her teaching and student learning, it was not having an influence on her current teaching.

One of the more important findings was how many next steps for individual students the teachers came up with during interviews and observations. If CASW facilitated nothing more than making teachers more aware of how to help students progress, it has merit. However, there was a disconnect between what the teachers voiced as their perceived student needs across the group or grade level and the individualized next steps for students. CASW could be helpful for teachers to help ensure that what they think they need to teach most is actually what they need to teach most. Lastly, teachers discussed at length what students needed to do next, but they did not discuss much of what they needed to do as teachers to facilitate that student growth. With continued use of CASW, hopefully some of that focus on the student could be redirected toward instruction.

Participating teachers also felt that CASW could help facilitate their curricular decisions as well as some improvements. They wanted their assessment of student work to be aligned with that of their colleagues and felt that their

department, while often philosophically and pedagogically aligned, needed more consistency within and across grade levels and subjects. They expressed a need for students to work more with the development of a thesis, claims, analysis, and evidence, and they felt that grade-level expectations should be on a continuum from sixth to eighth grade, increasing in sophistication each year. Teachers also voiced their concerns about the present level of difficulty of texts their students currently were being expected to read and analyze; they wondered if the expectations were appropriate. Even though these concerns were about the students' comprehension of the text, it was applicable because their ability to compose an effective literary analysis, or document-based question in social studies, is dependent on the depth of their understanding of what they read. The teachers in this study commented frequently on the level of reading comprehension needed to read the assigned texts and analyze them for an effective literary analysis. As a department, they had started to discuss this problem. CASW brought it to the forefront of their thinking, and they discussed making actual curricular changes.

As part of CASW, teachers participated in a collaborative group to interpret and document students' progress, think aloud, and discuss how students learn in order to make instructional decisions (Langer et al., 2003). While assessment is typically not part of a collaborative work analysis protocol, it fit in this study because teachers expressed gratitude for having a time and place to discuss this with colleagues. Their conversations focused on how they assessed student writing in comparison to their colleagues. Since the conversations about assessment were a springboard into the conversations about consistency within and across grade levels and subjects, the main concepts that teachers felt their students were finding challenging – thesis, claims, analysis, and evidence; grade-level expectations; and appropriate level of difficulty – were meaningful in this study, and with this group of teachers. One teacher shared that she and a colleague often switched papers and graded each other's to see how "in sync" they were and how consistent their feedback and grading were. They had done this before participating in the study; however, through the study, they had the opportunity to share this strategy with colleagues. There were nodding heads and several murmurs of teachers saying that was a "good idea" and that they "wanted to try" it.

The CASW protocol also engaged teachers in different grades in discussions about curriculum. There were some opposing conversations, about conventions versus content, that led to developing an understanding of grade-level-appropriate writing expectations. CASW led to a common understanding of what is expected of students to learn and helped provide a common vision for student performance. There was a high level of discourse during the CASW sessions, and teachers had sophisticated conversations about elements of writing, their teacher written feedback, and what students understood and needed to understand to progress.

24.3   Proposed Model for Practice

The most compelling implications from this study were related to the intersection of professional development and teacher practice. CASW, as a form of action research, can quickly reach the core of teacher practice. Teachers can see firsthand, through their students' work, what impact their instruction is having on

Introductory sessions:
  • Use of protocols
  • Nature of teacher feedback
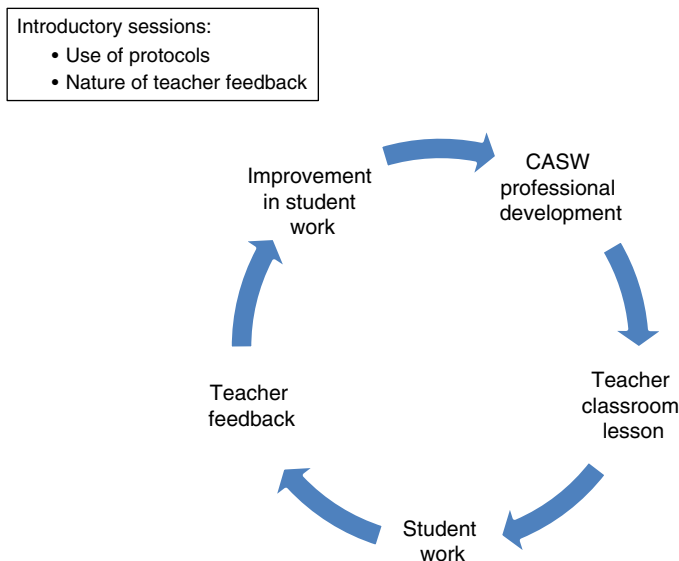
Figure 24.1 Proposed model for practice.

student learning. From those data, they can make instructional decisions based on what their students need most in order to progress. It is a job-embedded and immediately applicable form of professional development. Based on the findings of the study, this proposed model of professional development should start at the beginning of the school year or new semester. It should be ongoing with predetermined times so that teachers are prepared to share student work. It was also recommended by teachers that the rounds take place on common genres or related pieces of student work. Although any assignment can elicit useful feedback about an individual learner, different assignments present too many variables and make it harder for teachers to garner usable data. Figure 24.1 shows the proposed model for practice.

The proposed model is iterative and not linear because its benefits lie in the rounds of CASW, lessons, student work, and teacher feedback. The introductory sessions on protocols and the nature of teacher feedback needed for the model to be most effective would not be part of the iterations. Teachers can feel stifled by protocols unless they understand their purpose of facilitating non-threatening, collegial conversations in which all constituencies feel safe to share their thoughts and their students' work. Also, since teacher feedback is one of the most powerful interventions at a teacher's disposal, the introductory session on teacher feedback would help lay the foundation and establish expectations for its use.

24.4 Implications for Professional Development

Teacher learning and professional development have become a main objective of educational reform. Research identifies teacher learning and the development of teachers as keys to improving schools in the United States (Carnegie Corp. of

New York, 1986; Darling-Hammond, 1993, 2006; National Commission on Teaching and America's Future, 1997). Teacher learning is so critical that educational reform often is synonymous with teachers' professional development (Desimone, 2009; Sykes, 1996).

The effectiveness of professional development is hard to measure. The differences in and complexity of experiences counting as teacher learning and professional development pose a challenge for measuring professional development (Desimone, 2009). To overcome this obstacle, researchers began to focus on the elements of effective professional development. One way of translating the complex nature of learning opportunities into manageable, measurable phenomena is to focus on critical features of the activity (Desimone et al., 2002; Garet et al., 2001).

Researchers have found that effective professional development is supportive, job-embedded, collaborative (Guskey, 1995), ongoing (King & Newmann, 2004), and has instructional focus (King & Newmann, 2004; Mundry, 2005; Quick, Holtzman, & Chaney, 2009). The current study employed a type of professional development, CASW, which embodied all the features of what research has shown as effective. In the study, CASW was supportive, job-embedded, and collaborative. Teachers commented on valuing the time given to focus on how they viewed work and how that aligned with how their colleagues viewed the same work. All six teachers voiced support for the professional development being within their school day and found merit in collaborating with their peers. Findings from the study also were consistent with the efficacy of ongoing professional development. The study was 10 weeks in length and was comprised of three instructional rounds. Teachers had time to focus on the same concepts over time, although in teacher interviews, they expressed that they wished the professional development had taken place over a longer time span. Lastly, findings from the current study were consistent with prior research on professional development needing to have an instructional focus. Teachers commented that the professional development made them more aware of their teaching and student learning and felt it could have an effect on student work over time.

At the conclusion of the study, the participating teachers discussed that their department most likely would be participating in CASW again. Their department chair had already written a proposal for the teachers to receive inservice points for their participation and told me that the middle school administration was supportive of the proposed plan.

Throughout this chapter, the research and seminal studies on professional development show that similar attributes of effective professional development emerge repeatedly. More recently, the Bill & Melinda Gates Foundation (2014) contracted with the Boston Consulting Group in 2014 and reached more than 1300 teachers, professional development leaders in district and state education agencies, principals, professional development providers, and thought leaders through surveys and interviews to explore the implementation of effective professional development. "What we heard from this broad range of stakeholders was consistent: The way in which schools and districts deliver professional learning is highly fragmented and characterized by key disconnects between what decision-makers intend and the professional learning teachers actually

experience" (The Bill & Melinda Gates Foundation, 2014, p. 3). What teachers want is aligned with what research already has shown to be effective.

They described the ideal professional learning experience as:

- relevant ("It looks different in every context. It has to be personalized."),
- interactive ("The best … usually involves hands-on strategies for the teacher to actually participate in."),
- sustained over time ("PD needs to be something that you keep working on for a semester or a year."), and
- delivered by someone who understands my experience ("The best PD has been when a teacher shows me what has revolutionized their classroom … anything that a fellow teacher who is still in the classroom [presents] beats out anything else." "All teacher driven, with administration only there to support teacher needs. Top down would be gone.") (The Bill & Melinda Gates Foundation, 2014, p. 4)

Teachers expressed their desire for professional development to be relevant, which is similar to being job-embedded (Flores, 2005; Guskey, 1995; Tate, 2009) and having coherence (Garet et al., 2001). They would like their experiences to be interactive, much like being collaborative as defined by Guskey (1995), Knowles (1983), Lieberman and Pointer Mace (2008), and Mundry (2005), and hands-on (Garet et al., 2001). Teachers felt effective professional development would be sustained over time, much like researchers who found it should be ongoing (Fullan, 1995; King & Newmann, 2004; Lieberman & Pointer Mace, 2008; Loucks-Horsley & Stiegelbauer, 1991; Prochaska, DiClemente, & Norcross, 1992; Senge & Lannon-Kim, 1991). Teachers also wanted professional development to be delivered by someone who understands their experiences. Teachers described effective professional development, and CASW fits their description.

CASW has implications for professional development because it is a model that engages teachers with their colleagues in a format that immediately is relatable to their daily teaching; it is contextual and applicable. Any experience that holds great promise to increase the competency of individuals or enhance the overall effectiveness of an organization is likely to be slow and require extra work and follow-up (Huberman & Miles, 1984). CASW allows for continual follow-up and for teachers to stay immersed in the information they are gathering in the sessions.

Guskey (1995) explained effective professional development must be adaptable since the uniqueness of the individual setting always will be a critical factor in education; what works in one situation may not work in another. Some general principles, like the ones discussed previously, may apply throughout all professional development experiences, but most will need to be adapted, at least in part, to the unique characteristics of that educational setting (Guskey, 1995). CASW is adaptable. Teachers, instructional coaches, or administrators can help decide what aspects of the curriculum, teacher practice, and student learning can be explored through CASW.

24.5   Implications for Practice as an Outcome of CASW

While this study related predominantly to professional development, there were implications for practice since the professional development was a collaborative work analysis. Teachers were looking at student work and commenting on what they noticed about the student's understanding, use of conventions, and sophistication of craft and style. The teacher interviews and CASW sessions spawned conversations about instructional practice. From those conversations came five main implications for practice.

As teachers discussed their students' work using the CASW protocol, they repeatedly commented on the same elements. They commented on students' lack of understanding and application of thesis and claim as well as analysis and evidence. As these conversations continued, they started to discuss how reliant the construction of an effective literary analysis is on reading comprehension. They questioned if the level of text they were requiring of the students was too high for the level of sophistication in writing they were expecting. One implication for practice would be to use lower-level text when expecting sophisticated thinking and analyzing of a text. Students work so hard on the analysis that the text must be accessible to them. Similar to using less sophisticated text, another implication for practice would be for teachers to use simpler materials to teach and reinforce higher-level concepts. One example was the teacher who used the Disney film *Finding Nemo* to teach literary devices. While I was observing, her students were discussing possible motifs in the movie. Teachers also discussed the use of rubrics and how involving students in their creation would help hold the students more accountable to them. An alternative to rubrics would be having students write reflections about their writing, asking them to identify, with examples, its strengths and areas for growth. Teachers also discussed the need for additional small group and individualized work. They explained that these instructional structures often get lost in their departmentalized worlds, and they realized the importance of them and how much students could grow. Lastly, teachers wanted to create a continuum of writing skills for learners in middle school. They spent significant amounts of time discussing the difference between sixth-grade, seventh-grade, and eighth-grade writers. They felt that with clearer, more appropriate expectations for each grade, the students would be more successful achieving those goals as well as internalizing them as part of the foundation for the next level of rigor. At first glance, these five implications might seem unrelated. However, they all focused on making instructional decisions based on student learning, and meeting learners where they are to help them grow most quickly and deeply.

24.6   Additional CASW as Professional Development in Middle School

One of the most powerful moments in my career – solidifying the influence of action research on my professional practice – occurred at the end of this study. The English department chair sent me an email asking to meet with me because

he and his team wanted to explore CASW again because of the reflection they felt it facilitated about their instructional practices related to their work as individual teachers, as grade-level teams, and as a group of middle school English teachers. Two areas they were interested in pursuing were written teacher feedback and exploring the extent to which longer periods of time with CASW would have an impact on student work.

Feedback is information about how students are doing in their efforts to reach a goal (Wiggins, 2012) and is information communicated to the learner, intended to modify his or her thinking or behavior for the purpose of improving learning (Shute, 2008).

From those perspectives, the majority of the feedback given by the participating teachers did not supply that kind of support to students. The least common type of feedback utilized by teachers was to give information, yet that could be the kind of feedback most likely to elicit the types of changes in student work they were expecting. Brookhart (2008) explained that the best feedback for students is feedback that provides them specific information about their progress or lack of progress toward a goal and suggests actions a student can take to move closer to a goal. It is most appropriate when students complete discrete tasks so they can use teachers' feedback to improve their performance on the larger goal (Fisher & Frey, 2009).

Little of the feedback given by the teachers provided specific information to the students on how to improve. They wrote comments such as: "You need a thesis" or "Where is your evidence?" However, they rarely wrote suggestions for a thesis or evidence. Examples of more effective feedback they did use were: "You need quotes containing light imagery as evidence" or "This paragraph should have evidence specifically about Juliet's bravery."

Teachers expressed that they did not have enough time to give the types of feedback that they would like to give and discuss their written feedback with each student. Additionally, they questioned how much attention students even paid to their written feedback and sometimes felt they wanted to give less. Would the inverse be true? If the teachers gave more feedback, and not less, utilizing the types of specific feedback needed to help students progress, would students pay more attention to the feedback?

Questions to students were less influential, while positive comments almost never led to changes (Ferris, 1997). Ferris found that longer comments that were text specific were often associated with large changes, while shorter, general comments were not. In the current study, 19.9% of the feedback given questioned students and 17.5% was comprised of strictly positive comments, and a staggering 72.5% of the feedback was short, while only 11.2% was long. Teachers in the current study made comments that were specific 75.4% of the time and general 24.6% of the time. While keeping the high specificity of comments, maybe given feedback would receive more attention from students if it were longer and comprised of fewer questions and fewer strictly positive comments. Maybe the teachers would feel that their time was better spent with just a slight change in the types of teacher written feedback they give.

Students who received content-level feedback made marked improvement over time, while other students who did not receive any content-level feedback

made virtually no changes (Matsumura et al., 2002). Participating teachers in this study did make a high percentage (i.e. 75.4%) of specific comments, which research shows they should continue. However, if they coupled the specificity with length, as explained previously, and made fewer comments about grammar and mechanics – which currently were 23.7% of the types of comments given – and more about the content of the writing, they may see more influence on student work from their written teacher feedback.

Teachers gave a high number of comments on each piece of student work. They averaged a little over six comments on each piece, but they did not feel that they were seeing the value in their hard work. Students were not paying attention to the feedback as much as the teachers would like. While the teachers do not necessarily need to write more comments, longer, more content-related, less questioning, and less strictly positive feedback could help them see more return on their investment of time spent on written teacher feedback. The department chair and I felt a collaborative analysis of their own written teacher feedback would be a beneficial exploration for future teacher action research.

We also discussed building in an extra session to review some research on the history of protocols and their purposes, because the participating teachers had difficulty following the protocol at times. They struggled to stay in the round with the instructional coach. Initially, participants can be confused by the unique constraints protocols put on conversations; they can become unclear about the kind of participation that would be appropriate (Allen & Blythe, 2004). With more time spent on introducing the protocol and its purpose, the teachers would have had an easier time participating in the rounds.

While teachers felt that CASW had the potential to influence student work, it did not do so within the span of this study. Teachers wanted to repeat the CASW process the following school year and start it at the beginning of the year. They felt it would have more of an influence on student writing. All six teachers felt that the CASW professional development sessions could have an influence on student work over a longer period of time. The reasons for their beliefs about the potential for CASW to be "transforming," as one participating teacher said, could stem from its attributes of effective professional development that have been found in research over the past several decades.

Teachers embrace practical ideas; professional development disconnected from their daily work tends not to be as successful. Teachers tend to be quite pragmatic and hope to gain specific, concrete, and practical ideas (Fullan & Miles, 1992). All six teachers in the current study commented on the benefit of having CASW be job-embedded. Even when they voiced concerns about time and scheduling, they still came back to commenting on the benefits. In the 2007 meta-analysis by Yoon et al., the time spent, or contact hours, in professional development in the nine studies deemed effective in the analysis ranged from 5 to over 100 hours. Professional development experiences showing positive effects had 30 or more contact hours (Guskey & Yoon, 2009). This was true in the current study as well. Teachers spent between 9 and 10 hours in CASW sessions and had many positive comments about their experiences. However, with more time, greater influence could have been seen in student writing.

24.7 Teacher Action Research in an Elementary School

Seven years ago, in the elementary school where I work, there was a need to standardize assessment of our young writers, in terms of their work that was approaching, meeting, and exceeding standards. Teachers conferenced with children, but there was a disconnect within and across grade levels as to what a grade-level piece of writing should contain and what those writers should control. We used a modified version of a CASW protocol to distinguish a set of anchor papers for each grade for varying genres. Since then, teachers have used versions of action research to determine reading benchmarks and mastered spelling features. I even collect data at almost every faculty meeting with low-tech, high-yield chart paper and sticky notes. I simply place chart paper all over our auditorium and ask teachers for specific feedback on sticky notes. I collect data on all sorts of topics from back-to-school nights to opening of school meetings to after-school programs. However, each year, I am looking specifically at data throughout the year to help make a decision, fine tune a policy, or improve on practice. This year, I am currently collecting sticky note data on report cards.

Pre-kindergarten through fifth grade teachers have also attended many different institutes and trainings at Colombia's Teachers College. On one such visit, the instructional coach brought back the idea for lab site classrooms. Different teachers take turns hosting their colleagues in their classrooms to view various components of instruction. Facilitated by the instructional coach, the teachers give short overviews of what their colleagues will observe, teach the lessons while their colleagues observe, and hold a focused debrief session to close the lab site session.

We have been holding lab sites for the last three or four years. They have always been positive and well received by teachers, helping us build capacity for workshop model instruction. I feel they help us sustain and grow the reflective culture of the division, but I did not actually know their impact, the impact they were having on teacher practice and student work. As an administrator, teacher action research once again affected my professional decision-making as I decided to partner it with the lab sites classrooms. When teachers returned from several summer institutes, they met with the instructional coach to select a part of the training that felt important to them in their classrooms. For example, two teachers decided to research the more consistent use of strategy groups during their reading workshop and writing workshop times. During writing workshop, they are currently looking at pre- and post- lab site data on strategy groups. During the first unit of study, they did not use strategy groups, and assessed their writers on a common rubric. During the second unit of study, they met with their writers in strategy groups, groups comprised of 4–5 children with similar needs to move their writing forward, and will assess their writers again on a common rubric. Since the units of study are on different genres, the teachers decided to assess capitalization, organization, punctuation, and the application of the current strategies taught. The teachers, instructional coach, and I are excited to gather this research and see what information will unfold about instructional practice.

Teachers need information to be reflective and responsive professionals. They need to be researchers in their own classrooms, become equipped to answer their own questions, and know what those questions are. Being a teacher should mean using a variety of ways to capture the action that happens in a classroom (Dana, 2013). After we complete several rounds of lab sites with accompanying teacher action research, I am hopeful that we will get to the point where, each year, all teachers select an instructional component within their own classrooms, structure an action research project around it, and host a lab site. Colleagues can choose which lab sites to attend based on the needs in their own classrooms and their own professional interests. This type of professional development supports teachers, at all points in their careers, informing and guiding their work with children. It is a powerful development to watch unfold. One of the participating teachers from my study said CASW could be "transforming." Teacher action research has transformed my practice and should be nothing less; it should enable teachers to transform their classrooms in order to effectively support all the learners inside them.

Research that teachers can do in their own classrooms and within their own departments and schools could help change educational policy where professional development is concerned. There currently is a disconnect between researchers and teachers. However, according to Cochran-Smith and Lytle (1993), action research could help with the disconnect between researchers and teachers because currently teachers can feel ambivalence toward researchers and the field's lack of information about classroom life from an emic perspective. Action research brings theory and practice together. I have personally observed this to be true. When a new initiative is introduced in our school, teachers are encouraged to try it out in their own classrooms and collect data, no matter how informally, about its efficacy. Through this practice, I have watched our division benefit from the positive impact of teacher action research. One such example occurred after I started sending teachers to a weeklong training on a multi-sensory, Orton–Gillingham-based approach to reading instruction. Once a significant number of teachers had attended, there was a palpable tipping point when teachers who had participated in the training started analyzing data elicited from this approach's assessment versus our current assessment. They generated interest and understanding in moving to this assessment division-wide, and by the following school year, we formally made the move. I was inspired watching my colleagues purposefully use data to make a more effective choice for their students and encourage their teammates to do the same.

I see action research in all education programs and in all schools as part of the solution to the complex debates over the professionalism of teachers. There are debates over the inconsistency and quality of teacher education programs as well as debates over alternative routes to teacher certification. Both situations lead to teachers who are coming to the profession with varied skill sets, knowledge, and experience. Many who enter teaching initially believe that they do not need special training; most quickly learn that teaching is much more difficult that they thought and either seek out training, construct a teaching style focused on control (often "dumbing down" curriculum to what can be managed easily), or end up leaving the profession in despair (Darling-Hammond, 2006). While there is

not space here to sufficiently address debates about quality teacher education programs and alternative certification, its place in the discussion is to situate action research, specifically CASW and other collaborative inquiry groups, as part of the policy solution.

Changing policies regarding professional development and requiring teachers to conduct action research in their own classrooms presents a chance to improve teachers' and students' learning. It is a chance to right the wrong of what historian Ellen Lageman joked about the battle in twentieth-century education, yet is still true about twenty-first-century education: "E. L. Thorndike won and John Dewey lost" (as cited in Darling-Hammond, 2006, p. 77). As explained by Darling-Hammond (2006):

> Her point was to contrast the effect of behavioral psychology, with its attempts to develop simple, unvarying laws for teachers to follow, with what Dewey (1929) had in mind in *The Sources of a Science of Education*, where he described knowledge of methods, students, and subjects that would empower teachers to make more intelligent, flexible, and adaptive decisions – knowledge that would make teaching more individually responsive rather than more formulaic. (p. 77)

Behavioral psychologists' attempts to reduce teaching to such a set of laws have had an effect on professional development that does the same. Dewey (1938/1997) described teachers developing knowledge of methods, students, and subjects that would empower teachers to create and adjust their teaching for individuals. A change in policy for professional development that develops these attributes in teachers could effect positive change in education. I have watched reflective practice and professionalism promulgate our community due largely to teacher action research. Teacher action research as professional development empowers teachers to become the reflective and responsive professionals effective teaching requires.

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25

Exploring Literature Circles Discussions Through Action Research

Gail Sigelakis

25.1   Introduction

During my first few years of teaching fifth grade, I began experimenting with literature circles. I tried out several different techniques as introduced by Harvey Daniels and Kathy Short. I played with ideas such as giving my students assigned roles or letting them have the freedom to note-take on their own. It was exciting to see the students come in eager to talk about what they had read over the last few nights. One day, I was having a conversation with the reading coach and she asked me, "So, if you are using literature circles, how are you sure that you are meeting the standards and that the students are displaying understanding of the standards?" I stepped back for a minute and thought. I knew that the use of literature circles was a research-based strategy, but at the time, I wasn't sure I could really answer the coach's question. I immediately set to work developing a system to answer the proposed questions.

At the time, I was working on my doctoral courses and knew that I would have to design a research study, so it couldn't have been more perfect timing to have the coach question my classroom practices. I knew the importance of questioning and reflecting on teaching practice and the role that it played in adapting instruction to meet the needs of all learners. I had done the research and understood the importance of student-centered discussion. What I didn't know was whether I could combine authentic student discussion, integrate the standards into the work the students were doing, and show the impact it had on meeting standards as prescribed by the state and district in which I worked.

25.2   Introduction to the Study

During an action research study, it is important to identify the positionality of the researcher, as the positionality will determine how the researcher frames the design of the study (Herr & Anderson, 2005). Positionality refers to the researcher's relationship as researcher vis-à-vis research participant. The researcher can

be an insider, an outsider, or both working collaboratively together. For this research study, I was the researcher from an insider position, analyzing behaviors and outcomes in a classroom setting. Action research is a form of research that involves the teacher and an investigation of his or her own classroom. For my study, this involved centering questions around how I implemented literature circles within my own classroom, the connection to mini lessons, and the practice of reading skills. refer to teacher research as "systematic and intentional inquiry carried out by teachers" (p. 3). It was important for my own practice as a teacher that I look deeper into literature circles and how they can foster or reinforce the reading skills that are mandated by the state standards and assessed yearly on standardized assessments.

This research study was conducted from an insider position analyzing behaviors and outcomes in the classroom. This type of action research relies on more traditional qualitative methods of gathering data (Herr & Anderson, 2005). Traditional qualitative data methods might include interviews, observations with field notes, documents, videotapes, and audiotapes. A brief review of action research studies focused on literature circles confirmed the methods just mentioned. Quantitative methods such as test scores and survey results were also identified, although less frequently. These studies provided a framework for the design of the mixed-methods approach proposed for the study.

Although the use of expert panels was only mentioned once, Galvan (2006) notes that one of the guidelines for evaluating qualitative research is to note whether outside experts were consulted. Galvan states, "consultation with one or more outside experts increases the confidence consumers of research can have in the research results obtained in a qualitative study" (p. 56). The use of outside experts is particularly important when there is just one researcher who is also the teacher. This was the particular situation of the discussed study, which led to the creation of an expert panel to help develop a discourse analysis tool.

25.3 A Brief Review of the Literature

25.3.1 Literature Circles

Education is constantly evolving in reaction to change; educators are always searching for new and exciting ways to get students engaged in what they are reading. Literature circles couple two potent ideas in education – independent reading and cooperative learning. Independent reading is done by an individual, in or outside the classroom, where the pace and purpose of the reading are not directly controlled by the teacher. Cooperative learning is a successful teaching strategy in which small teams, each with students of different ability levels, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is taught, but also for helping teammates learn, thus creating an atmosphere of achievement.

The central goal during literature circles is to get students engaged in a group discussion about a piece of literature after independent reading has taken place.

In a process based on Harvey Daniels's (2002) definition of literature circles, the students first engage in free choice by selecting a piece of literature to read based on reading level and interest. Each student is then responsible for completing a certain task, which may include looking for difficult words, identifying conflicts, or making connections while reading independently. The task that the student completes will be used to guide group discussions following the independent reading. Once the group members have finished reading the book, they decide on a way to share highlights with a wider community. The wider community could include the entire class, school, or parent community. Little research has been done to link specific reading objectives to the discussions that are taking place between students during literature circles.

Although researchers such as Kathy Short (1999), Jerome Harste, Kathy Short, and Carolyn Burke (1988), and Karen Smith (2000) have been credited with the development of literature circles, this type of activity stems from early educational theorists and critical thinkers. Literature circles embody much of John Dewey's ideas in *Democracy and Education* (1916) in the sense that students learn by doing, they make their own reading choices, and learn how to become a responsible member of a learning-living community. A learning-living community gives learners the opportunity to create their own experience – to experiment, to inquire, to create. Dewey wanted a classroom where children could move about, form groups, plan and execute activities, and learn for themselves under the direction and guidance of the teacher.

One important component of literature circles is student-led discussion. Social constructivist theorists state that social interaction should not just occur between students, but that teacher communication is an important component, as well (Gavelek, 1986; Tharp & Gallimore, 1988; Wertsch, 1985). These theorists also believe that students should be working cooperatively to help facilitate meaningful oral and written language. In the case of literature circles, the students' discussion is the oral component and the literature circle notes contribute to the written language.

Discussion, for the purpose of this research study, can be defined as engaging students in public talk. This talk should be in reference to something on a topic about which the group seeks to improve its knowledge and understanding (Bridges, 1979). A variety of research has been done to support the idea that high quality discussion and exploration of ideas are central to developing understandings of readers and writers (Alvermann et al., 1996; Eeds & Wells, 1989; Gambrell & Almasi, 1996; Guthrie, Schafer, Wang, & Afflerbach, 1995). The previous research indicates a large improvement in reading comprehension performance in classrooms where more authentic questions and open discussion where present.

With the ever-increasing accountability that has come from standardized assessments, it is important that literature circle discussions be meaningful and relevant to the standards and objectives. This does not mean that outside personal conversation is not to take place, but that students and teachers should be aware of reading skills that will help the students succeed in the future. It should be evident to teachers that students are able to independently apply reading skills to what they are reading.

25.3.2 Standardized Assessments and Reading Skills

Teachers are required to meet the standards and objectives set forth in each state's proposed standards. When this study was conducted in 2010, Florida had just adopted new reading standards proposing broad strands in the area of reading. Those five strands were "reading process," "reading comprehension," "literary analysis," "writing process," and "communication." Within each strand, there are a number of benchmarks to be assessed. The focus in fifth grade was on the reading process and literary analysis. To be specific, the benchmarks that hold the most weight on the state assessment include: "using context clues to determine the meaning of a word," "identify cause and effect relationships," "locating and analyzing elements of plot," "analyze characters," and "identify conflicts." The state provides the appropriate instructional materials necessary to teach these skills; however, teachers also use supplementary instruction and activities outside of the textbook to do so.

No Child Left Behind (2001; US Department of Education, 2002) was still in effect during this study and it was a requirement that teachers use research-based instructional strategies to facilitate learning in the classroom. One common supplemental instructional strategy is to engage the students in literature circles (Daniels, 2002). Much research in the area of reading instruction states that literature circles provide the students with a chance to engage in collaborative work, positively increase student attitude toward reading, make text connections, and increase reading comprehension when involved in discussion (Carrison, 2005; Samway et al., 1991; Stien & Beed, 2004). Due to the holistic nature of literature circles, there was little research at the time connecting them to specific standards or assessment data.

25.3.3 Literature Circles and Reading Skills

Literature circles stem from the theory of holistic, or whole language, education. Holistic education embodies the theories of John Dewey (1916) and Lev Vygotsky (1962), in that students learn by doing and creating a learning-living community through taking on responsibilities, social interaction, and making their own reading choices. Reading skills and teacher instruction in this approach are not the main focus and, therefore, could easily be overlooked. It is important to note that the purpose of the action research study was not to say that the focus of literature circles should be put on reading skills and instruction. The study purported to investigate what reading skills are taking place during literature circle discussions in order provide the teacher with feedback to help inform future instruction.

As a result of the federal No Child Left Behind Act of 2001, educational practitioners had been called upon to use "scientifically based research" to guide their decisions about which interventions to implement. The emphasis on scientifically based research supports the consistent use of instructional methods that had been proven effective (National Institute for Literacy, 2005). The No Child Left Behind Act provided a list of questions educators could ask to distinguish between research that confirms the effectiveness of an instructional practice and

research that does not. Those questions include: Has the study been published in a peer-reviewed journal or approved by a panel of independent experts? Have the results of the study been replicated by other scientists? and Is there consensus in the research community that the study's findings are supported by a critical mass of additional studies? This study provided further support for literature circle use in the classroom, and the findings contributed to the field of research-based practices in the area of reading instruction.

Literature circles have been linked to raising student comprehension (Long & Gove, 2003); however, there was little in the way of direct connection to the specific reading skills that are assessed on state standardized tests. There was a need to make the connection between the skills reinforced through literature circles. There was also a need to make the connection between the role of instruction to enhance the students' abilities to use these skills and improving their attitudes toward reading and engagement.

25.3.4 Student-led Discussion and Analysis

One of the major components of literature circles is student-led discussion. Social constructivist theories tend to dominate in the area of reading instruction. Social constructivist theorists view reading as a social process (Gavelek, 1986; Tharp & Gallimore, 1988; Wertsch, 1985). The social interaction should occur between both adults and peers. Students should be working in groups to help facilitate the development of meaningful oral and written language to better understand what was read.

Raphael and McMahon (1994) conducted a qualitative study on book clubs to identify a new framework for reading instruction. After this two-year longitudinal study, the researchers found that students were able to hold discussions that were coherent, thematic, and encouraged all members of the group to make meaningful contributions to the discussion. After analyzing the dialogue of one particular group's discussions, they found that diverse students participated actively and assumed leadership in discussions, regardless of the challenges that the text presented for them.

Maloch (1999) conducted a six-month ethnographic study of teacher–student interactions. The researcher sought to investigate a teacher's role in supporting students as they transitioned from teacher-led discussions to student-led discussions. Through various data collection techniques – including field notes, observations, collection of artifacts, interviews, videotapes, and audiotapes – the teacher was able to narrow down and identify several themes. The themes identified were: the problematic nature of students' shift in responsibility, the progression of teacher emphasis, and the responsive nature of the teacher's interventions.

Maloch (1999) stated that, "the metacognitive lens provided by the teacher enabled the students to better understand the discussion process and their role in it thereby facilitating their more expert participation and engagement in the dialogue" (p. 21). From the data analysis, the researcher was able to identify several findings. The teacher has to intervene in order to help facilitate unfocused, unproductive student-led conversation. The teacher used several strategies to do

so, including reconstructive recaps, elicitations, reinforcement, extending, and refining. The theme "teacher emphasis" involved the teacher moving away from an emphasis on the process of discussion to a focus on the content of discussion. In relation to this research study, the teacher's role was to emphasize the use of reading skills in student discussions through direct instruction. This idea is supported by Maloch's (1999) findings that the teacher has to intervene in order to help maintain and guide meaningful discussion.

25.4 Methodology

25.4.1 Research Questions and Design

This study addressed fifth-grade students' use of reading skills during literature circle discussions, prior to skill-focused mini lessons and after skill-focused mini lessons. The research questions were:

1) What reading comprehension skills are the least commonly used by fifth-grade students during literature circle discussion after skill-focused mini lessons?
2) What reading comprehension skills are the most commonly used by fifth-grade students during literature circle discussion after skill-focused mini lessons?
3) Does the application of skill-focused mini lessons prior to literature circle discussions help to increase student achievement on the fifth-grade Florida Comprehensive Assessment Test (FCAT) of target skills?
4) In what ways do skill-focused mini lessons followed by application of skills in literature circle discussions transfer to new texts?

There had been very little attention paid in the research literature to students' independent use of reading skills during literature circles. Teachers need information about how to inform students' independent reading and are looking for research-based methods to engage students in applying strategies. An analysis of literature circle discussions is one approach in which researchers can have some access to students' thinking about text, as evident in the group discussions. This study helps teachers learn more about how to better understand those discussions and ultimately how to better support independent reading. The students in this study engaged in literature circles first with the presence of a skill-focused mini lesson and then with the absence of the skill-focused mini lesson to determine if they were able to use the reading skills independently when they read new texts. The transcripts from the audiotaped literature circle discussions were analyzed to identify the independent skills used.

25.4.2 Case Study Framework

The research study was a case study design based on the definition of Yin (1994), who defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context" (p. 27). This particular study could

be classified as particularistic, meaning it focused on a particular situation or event (Merriam, 1998); in this study, the event was the literature circle discussion. A case study of the particularistic nature can suggest to the reader what to do or what not to do in a similar situation, can examine a specific instance but illuminate a general problem, or may or may not be influenced by the author's bias. By using a case study design, I really got a chance to delve into what was happening in my classroom. I feel that, in the end, my study highlighted the use of literature circles and a general problem (monitoring for use of standards), but also provided a method for other teachers to use when incorporating mini lessons along with literature circles.

Qualitative and quantitative methods were used. Qualitative methods included audiotaping, transcribing the audio tape, and analyzing student discussion using a discourse analysis framework. A dependent *t*-test was used to determine the possible difference in student achievement on the FCAT diagnostic assessment and the FCAT for the academic year of 2008–2009. The use of both qualitative and quantitative methods was necessary to triangulate data. One of the most interesting aspects of the study was that I got a chance to develop an original way of coding and analyzing student discourse.

25.4.3   Pilot Study

A pilot study involving eight fifth-grade students not included in the dissertation study was implemented prior to data collection for the true study. A pilot study was necessary to gain a better understanding of what to expect from student responses in order to accurately code the data in the dissertation study. The pilot study also aided in correcting any logistical issues that may have arisen. Logistical issues for this study include the appropriateness of the books being used and the most efficient way to audiotape literature circle discussions. The pilot study also served the purpose of the development of a teacher script for each skill-focused mini lesson.

There were reading skills that had been identified by the National Reading Standards (IRA and NCTE, 1996) as well as the local school district that were assessed throughout the school year. Five of those skills were the targets of investigation for this study regarding literature circle discussions. Those five skills are: *describing cause and effect, analyzing characters, identifying conflict, identifying plot*, and *using context clues.*

25.4.3.1   Pilot study procedures

The eight students in the pilot study represented a range of abilities and were randomly assigned to one of two groups. Their discussion was audiotaped and transcribed. The students were assigned to read *Walk Two Moons* (Creech, 1994) and engage in literature circles. The students were assigned chapters to be read each night prior to meeting in literature circles. The independent reading consisted of approximately three to four chapters at a time, depending on the length of the chapters. The students were required to use sticky notes to help guide discussion the following day. Prior to engaging in the study, the students became familiar with the process of literature circles and were provided with instruction

and modeling of possible notes that could be taken during the reading process to help facilitate discussion during literature circles.

After each assigned reading and skill-focused mini lesson, the students came together in literature circles to discuss the reading. There were a total of five literature circle meetings and five mini lessons. The mini lessons were audiotaped in order to have a transcription to develop a script to be replicated during the dissertation study. The main purpose of this pilot study was to develop a protocol to identify reading skills in the students' discussion through a process of discourse analysis.

25.4.3.2   Data collection
The material selected for the analysis was the transcription of the two randomly selected group discussions. For the purpose of the pilot study, I transcribed in detail recorded discussions, which included all of the student discourse that took place during the discussions. The entire discussion was used in the analysis. One group was audiotaped, while the second group was videotaped to determine which process would be most effective for transcribing data in the dissertation study. Based on this process, the data for the dissertation study was audiotaped using a tape recorder with an external microphone.

25.4.3.3   Data analysis
Once the literature circles had been completed, I transcribed the audiotaped discussions. Titscher, Meyer, Wodak, and Vetter (2000) state there are four decisions to be made when deciding what material should be used for analysis. A researcher should determine from what material to make the selection, what parts should be analyzed from that selection of material, and what unit of analysis will be used. The use of an expert panel helped to develop the discourse analysis tools used.

25.5   Discourse Analysis

25.5.1   Expert Panel

In order to ensure the reliability of the process of discourse analysis, I needed to create an expert panel. I was working closely with two reading professors who were a perfect fit for the role. The other two members of the expert panel were two reading teachers. In order to ensure the knowledge level and credibility of the teachers, the requirement was set that each teacher needed to have at least 10 years of experience in reading instruction with a Master's degree or more. Once teachers with this qualification had been identified, an invitation to participate was distributed and two teachers were chosen randomly from among the willing volunteers. The university professors were invited by the researcher to participate based on their area of specialization (reading) and their willingness to volunteer. Once professors who met the criteria had been identified, an invitation to participate was distributed and two professors were randomly chosen from those willing to participate.

I met with each of the panel members to present the study. The expert panel was given a list of the sample student responses for each reading skill that was collected in the pilot study. In order for me to continue the coding process, my coding of skills and the expert panel's coding needed to match with 85% accuracy or better.

25.5.2 Creation of Discourse Analysis Tools

One of the biggest challenges was to develop a consistent method of discourse analysis to analyze student talk in the classroom. After doing extensive research on discourse analysis, I came to the conclusion that I was going to have to create something original. I determined that I would use a combination of coding transcripts, identifying units of talk, and an expert panel in order to provide credibility for the coding process itself.

Discourse analysis based on an approach from Gee (2005) was used to analyze the data. I analyzed the language students used in the context of independent group discussion focused on literature. These independent group discussions occurred within the larger context of classroom talk and prior teacher-directed lessons focused on the piece of literature students were assigned to read for homework.

To keep the anonymity of the students, I assigned an identification code for each student. The first letter identifies the student's ethnicity, the second letter identifies the student's gender, and the number represents randomly how many students of that gender are in the study. If a student was identified BM1, that would mean that the student is the first black male to be identified in the study.

I then identified five categories to code the data (*describing cause and effect*, *analyzing characters*, *identifying conflict*, *identifying plot*, and *using context clues*). These categories were identified based on the standards assessed on the FCAT. Each literature circle discussion in its entirety was transcribed for the purpose of analysis. I then identified specific words that related to the five different reading skills. For example, in examining a portion of the transcription, it could be determined that the phrases "I looked it up in the dictionary" and "Page 73, right here, what do you think it means?" were associated with the skill *using context clues* based on the information that the I gave during the skill-focused mini lesson and the context of the discussion.

25.5.3 Stanzas as Units of Analysis

Stanzas are "clumps" of tone units that deal with a unitary topic or perspective and which appear to have been planned together (Gee, 2005, p. 107). The students could have individually represented larger chunks rather than a single focus of consciousness in mind, and several such focuses across several students may constitute a single unitary larger block of information. In the case of this study, each stanza was a group of lines about one important theme (a particular one of five targeted reading skills). In certain cases, one student may have started the line that then causes other students to build from what was said; therefore, the group as a whole was engaged in one unit or stanza. An example of multiple students

WM2: If Mrs. Cadaver was here what would you do?
WF2: I would be scared of her.
WM1: Me too.
Teacher: Why?
WF2: Because a lot of people think she killed her husband.
WM1: And she is crazy.
Teacher: But has she really done anything crazy?
WM2: No.
Teacher: She may have weird hair but so do a lot of people, she does lawn work, but so do a lot of people.
WM2: And she buys axes.
WF2: Yeah that is a little weird. If she was doing lawn work than she could be burying his people.

Figure 25.1 Sample utterance of students analyzing character in a literature circle discussion.

making up one stanza for character development follows in Figure 25.1. A stanza shows the number of students that connect their structure, thoughts, and meanings. The way in which I identified and articulated these stanzas represented my own construction of how meaning is shaped in the discussion.

25.6 Findings

25.6.1 Use of Reading Skills in Student Discourse

The 16 students who participated in the study engaged in five literature circle discussions after application of skill-focused mini lessons. Using the coding process, I identified the number of times each comprehension skill was used during a discussion. The utterance of each skill was then tallied to determine the frequency of comprehension skills during each group's discussion and then as a whole class. Presented in Table 25.1 are the number of utterances for each comprehension skill accumulated for all groups.

From Table 25.1, the least and most commonly used skills were identified. The two comprehension skills with the highest frequency across the class as a whole were *analyzing character* and *discussing plot*. The use of *analyzing character* was

Table 25.1 Occurrence of skills in all discussions.

Skill	Total occurrences after application of mini lesson
Analyze character	43 (25%)
Discuss plot	42 (24%)
Identify cause and effect	36 (21%)
Describe conflict	27 (16%)
Used context clues	24 (14%)

identified 43 times throughout the discussions, making it the most commonly used skill. The use of *discussing plot* was identified 42 times, making it the second most commonly used skill. The comprehension skill *using context clues* was discussed 24 times within the discussions, making it the least commonly used skill. The comprehension skill *describing conflict* was uttered 27 times, making it the second least commonly used skill.

25.6.2 Assessment Data

Prior to the application of skill-focused mini lessons, the 16 students involved in the study took the FCAT Diagnostic Assessment in reading. After having been exposed to the skill-focused mini lessons and then engaging in literature circles, the students then took the FCAT in reading. The four skills used to answer research question three were *describing conflict*, *identifying cause and effect*, *discussing plot*, and *analyzing character*. A paired dependent *t*-test was used to identify statistically significant gains among the different categories of the fifth-grade FCAT from pretest prior to treatment of skill-focused mini lessons and following treatment. The dependent variables were the fifth-grade FCAT diagnostic score and the fifth-grade FCAT score, and the independent variable was the presence of the skill-focused mini lessons. Results from the paired dependent *t*-tests indicated no statistically significant differences in scores when mini lessons are present prior to literature circle discussions on the fifth-grade FCAT. The null hypothesis for significance after skill-focused mini lessons was rejected for two of the skill components of the FCAT, *comprehension* and *word phrases*.

25.7 Critical Reflection on the Impact of Action Research as a Practitioner

25.7.1 Practitioner Action Research Through the Eyes of an Elementary School Teacher

When I first started teaching, I would have never described myself as a researcher – this was completely foreign territory. The image I had conjured up was that of a scientist in a lab coat crunching numbers. After a couple of years in the classroom, I decided to take the plunge and earn my doctorate. It was through this process that I learned the true meaning of action research. The image of a researcher slowly began to shift and I could picture myself as that researcher, questioning her practice and growing and changing as a result.

   When it came time to make a final decision on what topic to research for my dissertation, the natural reading teacher at heart was screaming to dive into literature circles. This is a strategy that I used frequently with students then in my elementary classroom, and still now with my middle school classes. As mentioned in the introduction to the study, the reading coach's question immediately solidified the need to research the literature circles in the classroom. One of my favorite components of the study was the discourse analysis. Although there was literature with formats for analyzing discourse, I didn't find a protocol or method

that suited the discourse I needed to analyze. Because of this, I had to create one that would serve to help answer the research questions.

In order to create the discourse analysis tool, an expert panel had to be created to account for inter-rater reliability. The process of working together with other educators to form an expert panel was a motivating experience. Working in an elementary school setting, it was hard to find like-minded educators that understood why I was engaging in action research. I would oftentimes get eye rolls from other teachers, or questions such as "Why would you want to do research?" When I began to think about forming the expert panel, several teachers who were mentors to me came to mind. These like-minded people were key in helping me developing into a reflective educator. We frequently engaged in discussions around research and our own teaching practice.

Over the course of my studies, I had taken classes with a few professors who were role models who inspired my research. In particular, two agreed to be on the expert panel. Their knowledge from the research perspective was integral to the success of the discourse analysis tools in helping to identify relevant data that would be meaningful. Working with both groups of educators was an important component in corroborating data and enhancing the reliability of the study.

25.7.2   Changes in the Classroom

After completing this action research study, I am now armed with research-based data to support changes to literature circles. During the year that followed the study, I knew that the teacher-led mini lessons were an integral part in helping students to frame their discussions to reinforce analyzing the text for specific standards-based skills. Using the data from the discourse analysis, students' conversations frequently mimicked my language that was used during the mini lessons. In my classroom today, I have built onto the mini lessons and worked to incorporate more text-based discussion to meet the needs of the new Common Core Standards that are currently in place. Knowing which skills were most and least commonly used helped me to better develop mini lessons to support skills such as *conflict* and use of *context clues* that were lacking in presence during student discourse.

If you were to step into my classroom today, literature circles would look very different. As mentioned above, a shift in state standards occurred in 2013. What this meant for reading instruction was that a greater emphasis was put on higher-level thinking and rigorous tasks, and there was a shift toward text-based writing. As a result of this shift, I reflect back on my findings from the 2010 study and consider results about the significance of the role that the teacher mini lessons play in helping students to analyze a text and amplify that analysis during student discussion.

Another element from the study that has changed is the tasks and responses students are required to complete while engaging in the reading and literature discussion components. In the previous study, students had one skill reflection sheet that they had to complete that was used as a tool to guide instruction. In my classroom today, there are multiple tasks students complete that target those least commonly used skills such as *conflict* and *cause and effect relationships* within a text. Today, my students use technology to blog about their reading

experience while outside of school, choose from a menu of vocabulary tasks to develop a better sense of context clues, and complete character analysis maps that help them to connect conflicts that occur in the text to major events. I hold students more accountable in my class today and incorporate a peer scoring system to ensure students are completing tasks.

25.8   Next Steps in Action Research

In the introduction, I told of my first experiences with action research and how one little question proposed by the reading coach helped to bring clarity to my dissertation topic. Today, I am now working with middle school students as an English teacher. Adapting to middle school was a new challenge I set for myself, and now that I am comfortable in my teaching practices, I am diving into my second action research study – this time, in the area of writing.

One thing I have learned about working with middle school students is that you have to get the students intrinsically motivated and create a sense of relevancy so that they are engaged and, therefore, become more invested learners. To do so requires making instruction relevant to them and utilizing new technologies. Similar to my study from 2010, I began to question best practices of writing and a relationship to writing prompts on standardized assessments. Specifically, if students are allowed to create their own writing prompts based on personal interest and engage in authentic research to write essays, can they transfer their writing skills to a prompt-based standardized essay test? Currently, my new study is in progress, whereby I am utilizing researcher notes, student work samples, and an expert panel to assist with corroborating writing scores. I anticipate completing data collection, analyzing results, and writing up the findings over the next six months.

One struggle I still face as a classroom teacher engaging in action research is finding a community of like-minded people. The question "Why would you want to do research?" is still asked of me on a regular basis by both teachers and administrators. Several years ago, in our district, there was a push to engage in action research and, like many elements in education, this has fallen victim of the metaphoric pendulum of change. It is our job as teacher-researchers in the classroom to help shift the pendulum back the other way. My plan is to share my data from the current writing study with district specialists and publish the results in educator research journals. It is important that teachers see other educational professionals engaging in research to serve as models and support systems to reinforce the reflective practice of action research from an insider perspective.

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26

Story as an Organizing and Inquiry Tool for Action Research Partnerships Committed to Social Justice and Educational Change

Mark Kohan

26.1 Story, Action Research, and Educational Change

Humans are hard-wired for story, having used narrative for teaching and learning throughout our history (Connelly & Clandinin, 1990; MacIntyre, 1984). Stories are personal and cultural, individualistic and communal, and have been central in many social movements in the United States (Davis, 2002; Ganz, 2001). In recent decades, stories of schooling and teaching have revealed a rigid, regimented, and high-stakes day-to-day reality in our nation's schools (Alonso, Anderson, Su, & Theoharis, 2009; Kozol, 2005; Ravitch, 2010). Though many scholars have called for a change in focus toward equity, creativity, and cultural resources in the democratization of schools, they have been largely ignored or, in some cases, attacked by politicians, lobbyists, economists, and corporate business leaders who have had the greatest opportunity to craft federal and state educational policy. A paradigm shift is needed to reassert the importance of story in education as a critical aspect of educational change and democratization (Ball, 2006; Bell, 2010; Goodson, Biesta, Tedder, & Adair, 2010; hooks, 1994; Hopkins, 1994; Milner, 2010; Postman, 1999; Strong-Wilson, 2007).

Because the majority of educational research – especially qualitative and action research forms – is marginalized by state and federal policymakers, public discourse on public education has been perverted. While nationalism, racism, and political maneuvering play important roles in this, many current issues stem from invasive privatization efforts, which include the rise of the testing, textbook, technology, and school choice industries and the impact of their massive lobbies on policymakers (Cochran-Smith & Lytle, 2009; Ladson-Billings & Tate, 2006; Ravitch, 2010; Spring, 2017). This arts-based action inquiry is an attempt to capture the imagination of students, the public, and educational stakeholders through the simultaneous creation of a novel addressing concerns about what schooling, teaching, and learning are and could be in an era of intense privatization. This is an era characterized by costly standardized assessments and high-stakes accountability mechanisms that interfere with the relationships that support meaningful teaching and learning, and that offer regimented instruction

instead of teaching grounded in passions, place, and people. As a result, this inquiry uses the *story* in two ways: (i) as an organizing process for educational partnerships for social justice (i.e. as a method for youth participatory action research, supporting teacher education, and inspiring educational change), and (ii) as a method of inquiry and analysis through the creation of fiction.

Educational partnerships that make story and counter-narratives central to their organization can help address the marginalization of qualitative inquiry and action research traditions in the public sphere (Evans, Lomax, & Morgan, 2000; Griffiths, 2003; Magolda, 2001). Focusing on *story* acknowledges that life in schools and communities is dynamic, temporal, and contextual, and that understandings of one another and our institutions are only ever partial. Story offers a way to rethink dominant schooling, teaching, learning, and research paradigms, and inspire an education of possibility rather than for certificate or credential. These understandings stand on a foundation of sociocultural theory (Vygotsky, 1978) and expect that the reading of – and listening to – one another's stories is a transactional, exploratory, and subjective process (Rosenblatt, 1938/1991) with transformative potential (Cunningham, 2015). This includes the process of writing stories encompassing the Self, the Other, community and society, and current issues (Leavy, 2013; Sunstein & Chiseri-Strater, 2002).

Of all story genres, science fiction dystopia has been used as one of the most powerful forms of social critique. Science fiction dystopias have captured the public's attention and imagination in recent decades in film (e.g. *Star Wars*, *the Matrix*, *District 9*), fiction (e.g. *1984*, *We*, *Fahrenheit 451*, *I am Legend*, *Clockwork Orange*, *Handmaid's Tale*, *Kindred*), and young adult literature (e.g. *The Hunger Games*, *Divergent*, *The Giver*, *A Wrinkle in Time*), as contemporary social issues are turned into oppressive societies that tell stories meant to highlight the injustices of both humanity and institutions through the characters and their relationships. These reasons make it an important vehicle for educational and arts-based inquiries, particularly among teachers and students whose lives are often micromanaged by "superiors," social structures, and policies that attend little to their lives or to the needs of their families and communities. This genre also allows for detailed theorizing and cautioning about where current public education trends lead and how we can best address these trends. With this in mind, the novel assumed the working title of *2084.*

26.2   Assumptions and Conceptual Lenses

In writing the story of *2084*, I questioned the most dominant forms of schooling, instruction, and educational partnership that rely on technocentric and technocratic policies and practices. These policies and practices dehumanize the learning and generative capacity of students, teachers, educators, and community partners (Cochran-Smith & Lytle, 2009; Ladson-Billings & Tate, 2006). This inquiry assumes and reasserts the central role that relationships, community learning, and democratic inquiry can and should play in schools and society. I also question the purposes of education and processes of grassroots educational

partnerships for social justice and illustrate how those differ significantly from the focus of most educational partnerships. These issues are brought forth from the experiences of high school students, teachers, and other educators, including myself.

It is for these reasons that an inquiry stance resonates as an appropriate way to represent the challenges students and teachers face (Cochran-Smith & Lytle, 2009). This project also assumes that practitioners are cultural workers (Freire, 1998a) and this aligns closely with Freire's participatory pedagogy and politics (1970, 1998b). It recognizes that inquiry can be a powerful democratizing and community-building force in and beyond schools (Brydon-Miller & Maguire, 2009; Cammarota & Fine, 2008; Cochran-Smith & Lytle, 2009; Evans, Lomax, & Morgan, 2000; Ginwright, Noguera, & Cammarota, 2006; Oakes & Rogers, 2006; Raider-Roth, 2011) and is one of the most important elements in reaching and teaching current and future generations of students, teachers, and citizens. Arts-based action inquiries can stir readers to feel both threatened in a new "wide-awakeness" and simultaneously empowered to resist (Barone, 2006; Greene, 1977). These assumptions also assert the subjective interpretations and biases inherent in all educational research and assessment (Pinar, 2012), and respect the multiple readings that participants bring with them into these experiences, including those of the researcher (Milner, 2007).

26.3   Positionalities

My own teaching career and educational partnership work began as an English language arts teacher at a public alternative high school in Fairmont, West Virginia, which included work with the West Virginia Writing Project, as well as the Freedom Writers Foundation. It took new forms during my doctoral studies at the University of Cincinnati, where I was fortunate to work with a variety of social justice educators from community organizations, schools, and universities across southwest Ohio through a grassroots collaborative we created – the Teaching for Hope and Justice Network. My pedagogy then, as it is now, was heavily influenced by growing up a part of a multicultural family, living in Appalachia (with regular visits to Cincinnati, Ohio), travels both domestic and abroad, and studies in the humanities and anthropology at the University of Arizona. Currently, I serve as an assistant clinical professor at the University of Connecticut, where I focus on co-generating experiential learning opportunities and grassroots organizing efforts with students and educators that are grounded in the arts and humanities, as well as principles of action research, community-based learning, and anti-racism.

While this work comes from many sources, perhaps most recognizable is the work of the Freedom Writers and their teacher, Erin Gruwell, whose stories have been well-documented nationally over the past two decades (Freedom Writers & Gruwell, 1999; Gruwell & Freedom Writers, 2007; Haglund, 1998; Lock & Sullivan, 2011), as well as critiqued (especially the Hollywood movie) for perpetuating a narrative of white teachers as saviors or saints in urban education

(Breault, 2009; Carter, 2009). As a result, I sought to focus on and lever the power and popularity of the original book as a co-created, polyvocal text to highlight possibilities for – and generate new commitments to – public education where diverse student voices are central in learning, teaching, and leading.

26.4   Goals and Research Questions

The analysis and presentation of the data in this arts-based action inquiry takes place through the creation of a new dystopian story that highlights educational partners' voices, and synthesizes those with current educational research and my own experiences, in order to theorize future partnership and reform efforts, exigency, and possibilities. My inquiry uses the following questions to collect, analyze, and present data around an educational partnership inspired by an existing story of social justice (i.e. counter-narrative) within American schooling (i.e. *The Freedom Writers Diary*):

1) How do students, teachers, and other educators who participate in an educational partnership describe the challenges, barriers, and constraints they face in public schooling? How do they to attempt to address these constraints, both in the present day and in the future?
2) How will our public education system look in 2084 if current trends continue?
3) What is the role of student and teacher in 2084 and how/why does context matter?
4) What forms can educational partnerships for social justice take? Whom can they impact and how?
5) What are the possibilities for students and teachers, their relationships, and learning in and beyond 2084?

26.5   Sites and Sources of Inquiry

The Hughes Freedom Writers (HFW) is an afterschool literacy and leadership partnership between Hughes STEM High School and the University of Cincinnati's School of Education. It was also a part of a larger regional educational partnership, the Teaching for Hope and Justice Network. The nexus of activity for both the micro- and the macro-partnership was located at a teacher-led urban STEM school, which serves students in grades 7–12, the vast majority of whom are African Americans coming from low socio-economic status backgrounds. Participants met weekly during the academic year, and occasionally at teacher or facilitator homes during breaks.

Participants in this study were selected based on sustained attendance and participation for more than one academic semester. This could have included as many as nine Hughes STEM High School Freedom Writer students, one Hughes STEM High School English language arts teacher, one doctoral student in literacy, one university teacher educator, one community educator/cultural worker at

the National Underground Railroad Freedom Center who supports programming for HFW, and several preservice teachers. However, HFW partners who attended the majority of meetings and external professional development workshops and conferences offered the broadest ability to comment on the range of the group's activities and were invited to be interviewed as part of this arts-based inquiry, as they became driving forces behind building and sustaining this partnership.

At a weekly meeting and in a follow-up email, I explained the project and its goals to HFW. Participants who were interested told me in person, texted, emailed, or called. I then met with interested participants individually to discuss consent forms and rights in person as per a standard protocol. All of the participants were offered anonymity and the reasons for aliases were discussed; all requested to have their real names used. Three high school students – Adama, Frenchele, and Karissa – who had been involved in the HFW for more than a year, were interviewed, as well as the cooperating teacher (Joyce), a university partner (Chet), and a community partner (Richard). The university partner is a teacher educator and professor of literacy, while the community educator directs programs for one of the region's largest museums and cultural centers. The community educator was included to probe another stakeholder perspective on the partnership project. In sum, I interviewed six partners – three students, one classroom teacher, one teacher educator, and one community partner – who have been a part of the partnership since the first year it began.

26.6   Data Collection

Data sources included weekly meeting documents (e.g. journal entries, including my own, and/or discussion notes) from HFW, writing retreat documentation, selected local and national public presentations, and Teaching for Hope and Justice Network professional development workshops that HFW participated in, as well as semi-structured interviews regarding their partnership activities.

Interviews took place either at the university's college of education or at an alternate site of the interviewee's choosing near Hughes STEM High School. Site support letters were requested and granted from Hughes personnel, specifically the cooperating teacher and the school's programs facilitator. Preliminary findings were member-checked in follow-up interview(s) and partnership project meetings (Winter, 1991); these meetings included opportunities for reader response feedback and follow-up. Participants were also invited to write directly to the public through a letter or poem from Hilltop, a fictionalized school in *2084*.

The study took approximately a year and half. Prior to each interview and member-check, participants were reminded that they could withdraw or modify their participation and consent form at any time prior to the conclusion of this arts-based inquiry project. HFW acted as the primary interpretive community for this study, while members of the University of Cincinnati Action Research Center acted as a secondary one. Outside readers of various ages, in various professions, in different parts of the country were also asked to provide feedback on a rough draft of the novel.

26.7   Data Analysis

Creating a science-fiction dystopian story is both an interpretive and a productive process that allows inquiry into educational research and trends, as well as the Self and the Other. It is insider-outsider research and relied on the reviewing of nonfiction, phenomenological interview texts for inspiration for the creation and development of fictional characters, contexts, symbols, and storylines, which were also fueled by current trends in educational research, my past experiences in schooling, teaching, and partnerships, and my imagination. Specifically, I used the findings of a literature review I conducted on educational policy, practices, and partnerships, as well as my own experience building and sustaining partnerships in and beyond schools, to help develop background notes for the plot, setting/contexts, and interactions in the novel. I used research on current and expected trends to project future educational and societal structures and to develop some of the characters. I drew on the interviews I conducted with HFW partners to help develop the story by using their responses to the questions to deepen and expand story themes, characters, and interactions. In conducting the interviews, I consulted *Interviewing as Qualitative Research* as a guide for "interviewing as a relationship," and for interview techniques that attend closely to relational concerns (Seidman, 2006). After all of the interviews were finished, they were transcribed and analyzed thematically in tables through six stages of analysis prior to and during the writing of the dystopian story.

I composed a dystopian story that attempts to provide a summary of the relationships between and implications of those interview themes (Winter, 1991). Interviewees had the opportunity to develop a poem or letter within the context of the story to have a more direct voice (and, if chosen, authorship of this artifact in the story) in its creation and presentation. Interviews, cross-checked with HFW writing artifacts (e.g. journal entries, poems, and conference texts), served as the basis for developing particular characters, dialogue, and action in the novel as oppressive educational structures were confronted. Data selected for interpretation fell initially into one of the four thematic categories related to schooling and teaching: (i) histories/stories, (ii) values, (iii) concerns, and (iv) questions. As this was an arts-based action inquiry, I saw these categories as flexible first steps related to interview questions and expected the expansion of them as clearer snapshots of participant concerns and commitments in the voices and symbols of the story and its characters became evident.

Both literary and interpretive analyses of the creation of fiction were enacted, as the guidelines for dystopian writing came from the genre's conventions: (i) concerned with improving human existence and directing attention toward contemporary trends and issues; (ii) highlighting or predicting a rising evil or oppressive forces while there is still time to address the situation; (iii) moving its readers to compare his or her "real world" to the fictional futuristic society and consider how the latter could arise from the former; (iv) making readers feel simultaneously personally threatened and empowered to resist; and (v) calling attention to language, politics, and technology as powerful rallying points for national, cultural, and community groups wishing to emphasize their heritage, identity, and autonomy, and, if possible, moving readers to confront with their

own relationship(s) with language, politics, and technology (Sisk, 1997). These conventions were used to plan, evaluate, and member-check my dystopian writing.

26.8 Trustworthiness

Because the narration of *2084* has multiple first-person narrators and points of view, the text required polyvocal analyses (Hatch, 2002) not only to consider events and situations from multiple perspectives, but also to provide alternative explanations and interpretations of evidence. For this reason, I interrogated the voices that emerged, including my own, through the process of writing memos and field poems on the building of truthful fiction, as well as through the reader response of my interpretive communities. I triangulated data and themes among data sources to keep my dystopian writing aware of connections or disjunctions among partner voices, my own experiences, and applicable educational research. This process entailed checking findings with HFW, as well as inviting their responses along with other teachers, students, educators, family members, the community, and "critical friends" to attend to dialogic and democratic forms of trustworthiness (Anderson, Herr, & Nihlen, 2007).

26.9 Dystopian Storytelling in Poetry and Prose

26.9.1 Summary of the Novel *2084*

2084 tells the story of survival in a teacherless world through its two narrators, 17-year-old Winnie Weaver and 19-year-old Julio Luchar, as they attempt to navigate the high-stakes, technocratic realities of life and education in USE, a restructured country composed of walled technologically obsessed city-states subdivided into graded districts. After a traumatic event forces her from her A-grade existence into an unpopular university program, Winnie meets Julio, a C-grade, who has found an opportunity of a lifetime in that same program. Due to an unexpected scholarship, Julio is able to leave district C-8 for college and – with his new classmates, including Winnie – eventually finds himself on the way to a new experimental research facility beyond the walls of their city-state. After some very "un-standard deviations" occur, the two are forced into a search for survival of mind, body, and spirit. A search that takes them to a school called Hilltop, located far from the nearest USE city-state – a search that yields new human possibilities.

The following is a narrative poem that Winnie and Julio encounter at Hilltop.

The Race

A poem by the Hughes Freedom Writers

We have a dream
one day we live as one
cure a disease
that's why this race is bein' run

We're charting a new course
for an old race
And some items we coulda used
The first few times around

Here's a mirror
for acceptance
of your reflection
so you affirm mine
along the route we run

You see
racers are racists too
diseased and degrading
split wide open
like a gunshot from the inside
See that in the mirror?
What lies underneath
inside coursing
toxic blood river flow
makin' it rain
inside the body and beyond
soaking white robes
gangrene money
yellow drinks of apathy

Here's a towel
for the drenching
Sober up
One foot then the other

Imagine
how you dream
beyond a race and disease
you don't see so well

Wondering why it stirs and surges
clouds and shrouds
the turn ahead
Shoulder to shoulder now
Do you hear me
Do you feel my pace
Do you hear my feet
Do you feel that heat
We share

This race isn't going to end but it's worth the pain
to understand your place
to set a new pace
and to keep movin'

For Races mean nothing
without People to race
against was nothing new
But *with*
now there's possibility

To each a new role (or a few)
– rabbits and risk-takers
rabble-rousers and re-constructionists
from the ripe to the ruined –
Racers running
for a "new discovery"
In human dignity
And this is why we run
A race without end

26.10   On Interpretation

Before writing about the processes I explored and developed, I need to first clarify them. The following six stages of analysis were not always distinct, as the creation of notes on possible trajectories for the dystopian story and its characters undergirded each stage. The stages included:

Stage one. I interviewed each participant and took handwritten notes during the interviews and wrote memos after they concluded which included a fieldpoem related to change (e.g. a haiku) and six-word story (inspired by the Race Card Project) to get at the big ideas I was hearing from them. These are also activities I teach with to assist students in synthesizing complex texts and making those texts more accessible.

Stage two. After transcription, I listened to each interview a second time to make corrections on interview transcripts. I then created a table to display interview questions and responses by each participant in an Excel database. I gave a copy of each transcript to its appropriate source. Then, asking for corrections or additions, I shared my initial fieldpoems and six-word stories on each interview with the appropriate participant and conducted a structured ethical reflection activity at an HFW writing retreat. Participants were made aware at the retreat and via a follow-up email that they were welcome to submit a poem or letter detailing any theme we had explored or what the HFW has meant to them in their education to be a part of the writings from the fictionalized school – Hilltop – in *2084*.

Stage three. I conducted theme identification by color-coding responses focusing on the schooling histories/stories, values, concerns, and questions of each participant. The order of theme coding by interview was Adama, Frenchele, Karissa, Joyce, Chet, and Rich, which was not the order they were interviewed in, but was done to start with student voices and move out in the analysis. During theme identification, associations and connections were charted separately in comment boxes in the margins.

Stage four. I re-read all participant responses related to identified themes and created a table for each participant to organize and display their responses according to theme. The tables included brief notes about participant positionalities, including my own. I then cross-checked each participant's responses, which were now grouped thematically in tables, with my handwritten notes made during the interview process.

Stage five. Using the thematic tables by participant, I engaged in in-source and cross-source theme analysis. The connections and tensions that emerged alerted me to the need for new categories of analysis in each table, ones that focused on repeated and emphasized ideas, words, and phrases to identify frequently used and potentially important language for each source. The website Wordle.com assisted in identifying frequency of terms (as only participant responses were entered). I cross-checked those terms with the associations I charted in the margins related to important ideas and key words in the interviews during the second and third stages of analysis. The ways in which the participants referred to themselves and the HFW group required a new column in participant tables as did the key terms and metaphors they used. Once those were identified and paired with the responses to each theme, I wrote another round of memos with fieldpoems and six-word stories on the updated thematic tables. I cross- checked those with other HFW artifacts (i.e. writing retreat, conference, and meeting writings) to build as trustworthy a relationship as possible between the concerns of the group and story being written. Then, I gave a copy of the thematic table I made along with its new related fieldpoems and six-word stories to each participant to member-check with the expressed wish for feedback, corrections, or additions.

Stage six. I created a table outlining 24 chapters of *2084* that would chronicle the journey of two epic characters in a dystopian world, not unlike our own. I consulted the tables I created to organize participant themes, stories, and language, and put them in conversation with criteria for dystopian storytelling (Sisk, 1997). I wrote the majority of the novel over six weeks, and then met with the HFW to update them on the novel and read excerpts collectively where they provided reader-response feedback on the story, as per their structured ethical reflections. Participants were made aware at this meeting and via an email that they were welcome to submit a poem or letter detailing any theme we had explored or what the HFW has meant to them in their education to be a part of the writings from the fictionalized school in *2084*.

These processes allowed me to address my research questions by attending to the perspectives of my participants about phenomena impacting them in education and provided the basis for characters, landscapes, themes, and symbols in *2084.*

The story itself became part of the process and the product of addressing the research questions.

However, making explicit the processes that would lead to its creation and development proved more challenging and required me to keep my teacher identity central in the research and interpretation process. Because access and understanding are driving concerns for me as a teacher, the tables, poems, and six-word stories I created provided both clarity and conciseness for the participants to comment on and keep, as well as for the ways in which I could access their concerns and convictions for the writing of *2084*.

Because of the highly subjective and interpretative nature of this work (and acknowledgment of the partiality) within action research (Tolman & Brydon-Miller, 2001), interpretations of data were shared with HFW at each new stage of interpretation of their voices. This practice attends to trust and authenticity among the participants and for the study itself. These methodological guides address the research questions around educational partnerships for social justice because so many of them are organized through metaphors and/or stories. These methods are grounded in the belief that human beings "live storied lives" – that is, that stories are the way we make sense of the world and our experiences with it, as well as how we locate ourselves in relation to those experiences (Connelly & Clandinin, 1990, p. 2).

26.11   On Writing

2084 became a way of questioning what I think I know and feel about the current states of education in relation to the students and teachers I have sojourned with in urban, suburban, and rural educational contexts. The varying voices I carry with me into my interactions with students, teachers, and other educational leaders have led me to consider how best to highlight the importance of point of view (POV) and perspective taking. These are abilities that the teacher preparation program I am a part of has agreed are very important for our future teachers, as well as a part of each course I teach. While Winnie and Julio are our lenses for the future, many other characters speak for themselves, not simply through the two narrators. I spent hours developing dialogue that could echo voices of students and teachers as well as their relationships and the learning those relationships support. There are times where my training as a teacher educator and educational action researcher clouded, crowded, or interfered with the dialogue I was writing or with the narrators' thoughts themselves. I created the pseudonym, Eric Blare, not only to pay homage to George Orwell (whose real name was Eric Blair), but to stake a claim for a broader, collective writing identity that can be used both as a call to action and as a way to help make sense of the noise and frustration I feel regarding many current trends in public education.

As a student, I have loved novels that teach history, language, and culture in ways that make me see their impact and possibilities in new ways. For these reasons, I included books or allusions to books in *2084* that were a formative part of my reading history, learning, and social justice orientations. The books that Julio and his family keep below the floorboards of their kitchen are literal and

symbolic thanks to families who have cherished reading together. The kitchen is a place for not only the acts of cooking, but of creation and care. Evaluating education and educational research is often conducted through business or medical models and metaphors that have been extended to educational contexts. The Luchar family kitchen, like Hilltop's The Place Mat, is a place to reclaim healthier, more community-based metaphors that can help us talk about and evaluate learning and teaching differently. The role of food and breaking (or making) bread together in learning and in supporting community-building has not only been an element of the HFW, but of the epic genre that helped to influence dystopian writing. As a student of epics, and later as a teacher of them, I was drawn back to the origins of my actions and values around memorable stories. This influenced later characters and conventions in the novel.

As a researcher, I felt it important to get at the origins of things, for they can hold great significance about how and why things come to be or how we might change them. I have attempted to enact these values in my own research. For this reason, I delineated my positionalities, and while they bleed beyond it, my point of emphasis here is on the findings related to the process of creative writing as a method of inquiry on both personal and collaborative levels. The text of this novel is a literal questioning of where we were going in education and where my teacher and student experiences were in all of that. That forced me to confront where I had connections or tensions with characters and actions in the story. For instance, the thought and dialogue between Winnie and Julio – when they first find themselves in the forest beyond the walls – is a feeling out of two very different worldviews, in part because of their family lives and geographic and economic differences, but also because their schools and technology have emphasized things about what and who society values.

From that moment on, their journey together into and beyond Hilltop is guided by HFW concerns. For instance, Karissa's imagery and expressed need for "digging deep" for meaningful learning to take place, as well as the overreliance of technology that gets in the way of this digging, offered an alternative paradigm to USE's (i.e. the State's) prescription for schooling. Digging became a motif and organizing metaphor for the characters after reaching Hilltop, especially after hearing how other participants spoke to the depth and meaning the HFW provided them.

As the teacher in the group, Joyce likened the work of the group to a "lightning rod" that was grounding for her in her teaching. Her hope was that its influence could spread like "little fingers" or tributaries into other classrooms in the school. Both of these images became driving symbols in later chapters of the novel. Joyce used other water metaphors multiple times in her interview that inspired me in early chapters to explore their significance to education through Julio and his family's appreciation of author Rudolfo Anaya, who has written deeply with and about the symbolism of rivers. This also influenced my decision to characterize participants as "sources" rather than as cases.

Meanwhile, the importance of games and play in learning, as well as having "an escape" from the violence, drugs, and "drama" in her community, were themes that Frenchele brought to Hilltop's creation. Adama spoke to the importance of being able to find and tell his own story in school, especially after moving from

Africa, as well as having people who could act as guides, showing him a new path, direction, or language, but not making or taking the journey for him. Those notions of support and challenge between teachers and students, and the journey each student must make at some point by themselves, drive the two protagonists as they struggle to understand the place and possibilities of being in an educational partnership with others in *2084.*

Community and teacher educator perspectives in the HFW also served as important sources for inspiration, Rich's teachings and concerns with motivating young people to face history and address racism spurred the creation of Nettie Oakes and the histories that Winnie begins to learn for the first time. This history becomes a meaningful part of the learning she takes with her from Hilltop and drives her actions and commitments in the second half of the novel. Chet's voice contributed to this too as he emphasized the importance of reflecting on cultural and racial identities for teacher education students and teacher educators themselves, both individually and collectively. His quote that "teaching is really about relationships" became a driving theme of *2084*, as that truth was echoed time and time again in different ways by each of the participants and in my own experiences. That idea related to assertions of other HFW and initiated a focus on out-of-school factors that undermine relationship building and meaningful learning in classrooms and through schools and their communities.

Finally, the stories each participant told related to HFW activities and opened up other themes and symbols for exploration in the novel. For example, Chet told a story of a teacher who was a single mother in the early half of the twentieth century and who lived in constant fear of being found out for having a child out of wedlock and losing her job. She wrote her fears and the truths she lived that no one saw or spoke, and, 20 years after her death, her son found those letters – a stash of letters speaking to him from beyond the grave – painting an intimate portrait of who she was and what she struggled against. That story provided the impetus for the Schoolhouse Stash – a collection of poems from the HFW – words attributed to past and present students and teachers of Hilltop. It is a snapshot of who we were and what we wrestled with individually and as a group.

Other cross-source connections revealed that all of the participants interviewed spoke to the need for more student and teacher voice, empowerment, and agency in directing classroom learning, school organization, and community change. For this to happen, each participant spoke to the importance of having places in school, or that are school-sanctioned, that are hopeful and which offer listening and inspiration. Each voiced a need to grow the HFW – to have a stronger sense of community and a safe space in schools where people of different backgrounds and ages sustain a space for listening to and accepting others on their own terms, without labels or judgment, while still being able to be critical of the world beyond the group. These commonalities became a part of the foundation for Hilltop. There was also a great deal of concern voiced with tests determining so much of their schooling and future opportunities. These concerns inspired Winnie's collapse in "Chapter 3: The Test" and later the conversation she and Julio have in the forest. While there are many more points of individual or shared language from participants that influenced the writing of *2084*, the aforementioned examples are among the most pressing for me and speak to the way

voices were thought about, attended to, and integrated into a story about the exigency and possibility of partnerships in education. However, there were points where my own reading, writing, teaching, and learning histories were the key sources for particular characters and their decisions, such as with Holliday and Huckleberry. They are, in part, symbols of the wisdom I gained growing up and teaching in Appalachia. They rewrite two icons of American mythology: one as a fiery young woman, a survivalist, with a deep connection and respect for the Earth and the oral tradition – values USE lost or rejected long ago – and the other as an androgynous pre-teen, respected and admired for the wit and wisdom too often found but ignored in young people today. Too many new technologies – Eyes and Links – distract us from what we could be focusing on or how we can be present and learn with others when we take the time to unplug. *2084* is a collection and amalgam of multiple sources staking their claim for more enlightened and humane schooling and teaching. It is a story of subjectivities and shifting contexts.

26.12   On Revision

By 2084 – even at this moment – the delete key in life doesn't work like it used to, as our structures remember everything; they hold fast our thoughts, missteps, and mistakes for others to judge and too often project out as an all-encompassing label of one's worth and possibilities. *2084* reacts to how difficult it is becoming to re-invent oneself, especially for young people, in an age of great technological proliferation, much of which is openly embraced by political and business leaders and profoundly influencing practices in public education. As a result, HFW are awash in the material and political pressures – even expectations – demanding their attention through a language of labeling in schools. The labeling of high-stakes policies focused on economic outcomes in education mirrors those of business and advertising, and it places a heavy burden on students, teachers, and teacher educators alike. It creates a distrust and uneasiness with schooling and teaching that each member of HFW spoke to. As a result, we have spent time as a group writing, questioning, and revising our thoughts, words, and actions as part of Freedom Writers-inspired youth participatory action research practices. The group sees the Freedom Writers story as one of possibility and affirmation – including celebration – of differences in learning and teaching. The activities and methods in which Erin Gruwell and the Freedom Writers engaged were teacher and student negotiated and created. The HFW adopted this stance, and activities are adapted, created, and negotiated per the needs and learning interests of the group. Some of these activities serve as inspiration and revision material for the chapters on Hilltop in *2084*.

  As part of the HFW retreat and subsequent meetings on *2084*, Joyce, the teacher in the group, asked questions primarily about how I was structuring the writing and chapters in relation to other dystopian literature she had read and taught, while students seemed most interested in the characters and the structures they confronted (e.g. What happened to Julio's mom? What are

Golddusters? Why so many acronyms? What's with the districts?). Their questions and their commitment to community questioning and imagining became a source of hope and guidance in re-visioning and revising. At the same time, the interview process and group ethical and story reflections on the project made me aware that even though I have spent time each week over the course of several years with the HFW, I still have only entered into one small but sacred space of their complex lives and inspiring abilities. There is a profound respect for a place where we can see and hear some of each other's assets. There is a respect for latent learning – that sparks and flame occur at different times for different people in different places. There is respect in the group for having a shared sense of place, people, and purpose that not only protects but promotes shared imagining as an integral part of the learning process.

26.13   Implications

This study holds many implications for academic and community-based practitioners, as well as policymakers and the public. First, it is a new form of educational inquiry, in terms of both process (i.e. stages of dystopian fiction writing as interpretation) and product (i.e. a dystopian story); one that merges public accessibility and empowerment with expanded notions of academic rigor. Second, it calls attention to collaborative, creative writing as a trusted – perhaps even catalytic – approach within qualitative and action research traditions. Third, that *story* can be a central feature in organizing and evaluating educational partnerships for social justice and school-reform efforts. Taken together, these implications could unite diverse public and academic communities with an *un*common (and yet uniquely common) language to rethink the purpose of schooling and teaching, as well as to organize against high-stakes testing and standardization models in education. Lastly, it is a beacon for educational policymakers, researchers, and the public to help us find our bearings by learning from characters, actions, and symbols grounded in student and teacher voice and the current state of education. It is a prayer to make change before the last legs of public education are cut off and sold in the name of instructional management, leaving only the empty shoes of children who once knew how to play and learn and question, until corporate interests got in the way.

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27

Investigating the Benefits of Curriculum-Based Readers Theatre for English Language Learners Through an Innovative Professional Learning Community Model

Samantha N. Uribe

27.1 Introduction

The Multicultural Education, Training, and Advocacy, Inc. (META) Florida Consent Decree (Florida Department of Education, 2013) mandated professional development for all teachers who work with English language learners (ELLs); however, it did not create a plan for how teachers should be trained. Each university or school district is faced with the difficult task of developing a comprehensive plan to provide preservice and inservice teachers with the tools necessary to teach ELLs. In order to do so, university coursework or professional development often focuses on the similarities of first and second language acquisition and labels lists of general classroom techniques as "ESL [English as a second language] strategies" (Harper & de Jong, 2009, p. 143). Though these techniques may be effective when adapted for ELLs, teachers are provided with limited practical training on how to implement them in a manner that meets the needs of ELLs.

Zeichner (2005) suggested that professional development opportunities focusing on the education of ELLs have not evolved to support federal and state policies that emphasize teacher accountability. In order to address these changes, mainstream teachers who are challenged to teach students with varying levels of language proficiency must incorporate strategies that simultaneously promote academic rigor and language acquisition. With the growing population of ELLs, it is necessary to incorporate instructional approaches that make language accessible to all students, regardless of oral language or reading ability.

Mainstream teachers in the state of Florida are required to obtain an ESOL (i.e. English for Speakers of Other Languages) Endorsement prior to or within their first three years of teaching; however, a body of research has suggested that their coursework or inservice trainings do not ensure that they are adequately prepared to educate ELLs (Batt, 2008; Cho & McDonnough, 2009; Cho & Reich, 2008; McIntyre et al., 2010; O'Brien, 2011; Reeves, 2004). Because professional development for teachers of ELLs is not preparing them to meet the needs of their diverse students, it is necessary to determine alternative ways to incorporate ESOL instructional strategies and language practice during instruction.

Rosalind Flynn, an educational drama specialist for the Partners in Education Program of the John F. Kennedy Center for the Performing Arts, created Curriculum-Based Readers Theatre (CBRT) in order to transform textbook information and facts into theatrical productions. CBRT differs from traditional readers theatre in that it includes scripts specifically developed to promote retention of curriculum material mandated by state and district standards (Flynn, 2005). Flynn (2007) described the approach as "an arts-integrated instructional activity that allows teachers to dramatize content learning by infusing basic performance elements with classroom subject matter" (p. 2). Flynn works with teachers around the country and provides professional development on how to implement this creative approach to content area instruction.

CBRT transforms highly decontextualized textbook information and facts into dramatic scripts and can be used to increase fluency, comprehension, and retention of information in any content area, including language arts, math, science, or social studies. CBRT is an art-integrative approach that was not created specifically for ELLs; however, various program elements seemed to incorporate practices that are endorsed as effective strategies for teaching ELLs. A review of studies involving collaboration with a teaching artist (Creech & Bhavnagri, 2002; Walker, Tabone, & Weltsek, 2011; Weber, 2005) demonstrated the positive impact of infusing dramatic techniques within the literacy and content area classrooms. Diverse groups of elementary and middle school students were included in these studies, which suggests that dramatic approaches are appropriate and beneficial for students with varying levels of educational experience. Teachers across the country encounter ELLs who possess complex academic and linguistic needs that are not always satisfied through traditional teaching techniques; therefore, teachers must incorporate methods that allow them to transmit knowledge efficiently to a wide range of students by infusing strategies that make language and content comprehensible.

27.2   Purpose of the Study

This chapter is derived from my dissertation, a mixed-methods case study conducted at the school where I was employed from 2006 to 2013. The purpose of the study was to investigate the benefits of CBRT as an approach for teaching ELLs. In order to learn more about participants' perceptions of CBRT as well as their experiences with professional development and classroom implementation, I collected and analyzed various forms of data including surveys, discussion board transcripts, and interviews. In the following chapter, I will briefly summarize the results of the larger study; however, the focus will be on the professional learning community (PLC) that served as a context for our shared inquiry into how CBRT could be used to address the needs of our culturally and linguistically diverse students.

As a school serving a significant population of ELLs, our faculty was constantly seeking out effective and engaging ways to address the academic and linguistic needs of this demographic. When I first read about CBRT during a literature

search for one of my doctoral courses, I saw the approach as an opportunity to address ELLs' literacy, linguistic, and content needs in a non-traditional way. Eager to share CBRT with my colleagues, I obtained permission from my principal to bring Dr. Flynn, creator of CBRT, to our school.

In order to avoid common pitfalls of poorly implemented and poorly supported professional development, I carefully considered the design of professional learning opportunities for participants within the study. After a review of studies investigating the effectiveness of professional development, Guskey and Yoon (2009) were able to identify several common elements across each of them, such as the importance of time, follow-up, and content. The studies indicated that effective professional development must allow for considerable time and must be clearly organized and focused on specific content and/or pedagogy. Guskey (2009) stressed the influence of context when implementing change and states that even "the most powerful content will make no difference if shared in a context unprepared to receive it and share it" (p. 229). Oftentimes, a particular program will be endorsed and mandated with great fervor, only to be replaced by a different program at the start of the next school year. Cohen and Hill (2001) described this as a "blizzard of often divergent professional development that typically blows over U.S. public schools" (p. 9), which can often lead to teachers' resistance to implement changes that they fear soon will be replaced.

Instead of offering only a single CBRT professional development session and assuming that participants would be prepared to implement CBRT and analyze the benefits for ELLs after just one exposure, I invited interested teachers to form a PLC, which focused on studying, implementing, and reflecting upon our experiences using various forms of readers theatre, including CBRT, in the classroom. Newmann (1996) described five essential characteristics of PLCs, including the establishment of values and norms and a clear and consistent focus on student learning. In addition, PLC participants must engage in reflective dialogue, deprivatize their practices, and collaborate with colleagues. While educators may engage in these activities sporadically, a PLC encourages consistent implementation, as well as a clear focus on producing data that enable educators to link changes in teaching practices to improved student learning. Our PLC formed in September, and halfway through the PLC calendar (i.e. in January), Dr. Flynn visited our school and facilitated a full-day CBRT workshop. We continued to collaborate through April, with our focus shifting from readers theatre in general to an explicit emphasis on CBRT and its application for teaching ELLs. More information regarding the PLC design will be discussed in the following section.

27.3   Research Design and Context

An embedded sequential design, which uses qualitative data to support and expand upon quantitative results, was used to guide the study. Creswell and Plano Clark (2011) have defined the embedded design as "a mixed-methods approach where the researcher combines the collection and analysis of both

quantitative and qualitative data within a traditional quantitative or qualitative research design" (p. 90). Case study research, which is one type of qualitative research, is an intensive description and analysis of a single unit or bounded system (Merriam, 1998). Though action research in education is generally presumed to be qualitative in nature due to its emphasis on examining one's own practice, Zeni (1998) suggests that "small-*n*" statistics can be used to complement qualitative findings; therefore, this study is best characterized as an embedded mixed-methods case study. As an insider at the data collection site, I investigated the following research questions:

1) What do teachers report about how they use ESOL instructional strategies in their classrooms?
2) To what extent do teachers identify ESOL instructional strategies within the CBRT approach?
3) How do teachers describe their use of CBRT in the classroom in terms of procedures and application of specific ESOL instructional strategies?
4) What do PLC members report about the impact of the Readers Theatre PLC on their experiences with CBRT implementation?

Because the initial focus of the study was on teachers' perceptions of CBRT as an approach for teaching ELLs, I was interested in learning about which instructional strategies they were using to modify instruction for ELLs prior to using CBRT. After CBRT professional development and classroom implementation, I inquired about ESOL instructional strategies embedded within the CBRT approach, as well as experiences with implementation. These data were collected as participants' responses to three Likert-type surveys, as well as discussion board transcripts and interviews.

27.3.1 Setting

The study took place at one school in a large public school district in South Florida. During the 2012–2013 school year, the county's 314 schools (33 high, 42 middle, 141 elementary, 15 centers, and 83 charter) served 260 796 students in grades PreK-12. According to the county's ELL and Foreign Born Student Enrollment Report, 34 199 (13%) of all students were classified as ELLs. Fifty-six different languages and 174 different countries were represented within this diverse group of ELLs.

Our school, Sandy Beach Elementary (SBE) (a pseudonym) served the largest student body of all elementary schools in the county, and, at the time of the study, had the highest number of active ELLs (376 students in pre-kindergarten through grade 5). As a faculty member at this school, I had experienced first-hand the struggle to help ELLs achieve academic success and meet criteria for promotion at each grade level. Based on Florida Comprehensive Achievement Test (FCAT) results from the 2008–2009 school year, SBE did not achieve Adequate Yearly Progress (AYP) criteria because the ELL subgroup did not meet the required math proficiency scores. The 2009–2010 AYP report showed similar results, with ELLs making adequate learning gains in reading, but not in math. Though data are no longer disaggregated by subgroup and AYP is not being measured

throughout the state, teachers were still challenged to work with diverse groups of students.

27.3.2   Our PLC Model

When I discovered CBRT, I immediately recognized benefits for ELLs, and I wanted to share this with my teachers and work with them to further uncover what those benefits were and how using CBRT could help them support students' content and language learning. Recognizing that teacher change is a challenging and ongoing process, it is necessary to offer professional development opportunities that provide participants with a support system and allow teachers to gradually implement changes within their own classrooms. Based on this assertion, our school district was beginning to encourage year-long, school-based PLCs as the main source of professional development.

   At the beginning of the school year, I spoke about CBRT at a faculty meeting and invited all interested second- through fifth-grade teachers to form a PLC that would focus on investigating readers theatre and the benefits for diverse learners. A group of 14 teachers (myself included) formed a PLC committed to learning about and implementing readers theatre in their classrooms. We began by reading a few research studies about the benefits of readers theatre and by discussing our prior knowledge and experiences. During PLC meetings as well as within the discussion board, participants were asked to find readers theatre resources and share scripts as well as ideas for implementation. The group also engaged in script reading and staged "performances" during the meetings. Reflecting on these experiences enabled us to brainstorm ideas for how to use readers theatre to benefit all learners as well as to explicitly focus on unique characteristics that this approach offered for ELLs.

   As part of their 20 hours required to earn inservice points, the PLC members attended a CBRT professional development course and met at least once a month between September and April. These meetings included eight face-to-face interactions and seven posts on a discussion board that was created specifically for the PLC. The first four meetings and discussion posts (one meeting and one discussion prompt per month) took place during September, October, November, and December. The purpose of these sessions was for participants to conduct individual research about readers theatre and then share what they had learned with other PLC members. This work was in preparation for a full-day professional development session, which was facilitated by Dr. Rosalind Flynn. The discussion board assignments following CBRT professional development asked participants to reflect on their feelings, experiences, and/or perceptions of the approach, professional development session, and/or implementation.

27.3.3   Data Sources

All participants agreed to attend the CBRT professional development session and complete a series of three surveys regarding their use of ESOL instructional strategies, perceptions of CBRT immediately following professional development, and perceptions of CBRT following classroom implementation, which were analyzed

using descriptive and inferential statistics. All participants were invited to partici-
pate in 15–20-minute interviews regarding their experiences with CBRT imple-
mentation. When data collection was complete, interview and online discussion
board transcripts from 7 out of 13 PLC members were coded and analyzed.

27.4   Role of the Researcher

Herr and Anderson (2015) suggest that a defining characteristic of action
research is that it "is done *by* or *with* insiders … never *to* or *on* them" (p. 3). At the
time of the study, I worked at the site as the ESOL Program Coordinator/Resource
Teacher. As a member of the support team, I was responsible for assessment and
compliance documentation for all students in the ESOL program. I also devel-
oped and monitored curriculum for ESOL remediation groups and provided
support for mainstream teachers who had ELLs in their classes. Committed to
ongoing professional development and creative programming that enabled
teachers to meet their ELLs' academic and linguistic needs, I frequently shared
research studies and information regarding best practices for ELLs with my fac-
ulty and collaborated with teachers to support their implementation of new
instructional activities.

   After a study abroad trip to Mexico as part of my doctoral program, I became
interested in the power of the arts in facilitating language development. Shortly
thereafter, I read Dr. Flynn's work and became interested in CBRT. For two years
prior to this study, I was in contact with Dr. Flynn and had the opportunity to act
as a participant-observer during one of her professional development sessions.
This experience emphasized the benefits offered by CBRT, particularly as a vehi-
cle for meeting the needs of linguistically diverse learners in the classroom.
Through this study, I brought CBRT to my school and collaborated with teachers
to investigate implementation and benefits for ELLs. During the study, I acted as
an observer of change that resulted from participants' involvement in CBRT pro-
fessional development, which was delivered by Dr. Flynn. My position at school
was one of support for teachers, not of authority. Teachers were invited to par-
ticipate in the study as an opportunity for personal professional growth, and
their decision whether to do so had no impact on their professional evaluation.

   Herr and Anderson (2015) differentiate between various positions that
researchers can take, ranging from an insider (teacher/practitioner) engaging in
self-study to an outsider (i.e. university-based researcher) studying insiders.
Their continuum of positionality in action research identifies several categories
that can be used to classify the researcher's relationship to the setting. The
authors indicate that the categories are "somewhat simplified" (p. 41), therefore,
not always offering a clear position for researchers to identify with and also rec-
ognizing that one's positionality might shift during the study.

   Considering my own experiences, I identified my own position as an insider in
collaboration with other insiders, although my roles changed slightly at each
point of the process. During the first few months, I was a true insider – an educator
engaging in collaborative inquiry with other PLC members. When Dr. Flynn

came to deliver CBRT professional development, I participated in the workshop, but also began to administer surveys regarding other PLC members' experiences. Interviews with seven PLC participants were conducted after CBRT implementation, and, although those meetings occurred outside of the regularly scheduled PLC meetings, our conversation mirrored that which was exchanged with the larger group. My role during data collection sometimes resembled that of an outsider; however, my personal relationship with the participants and school community as well as my ultimate goal of supporting faculty in meeting the needs of ELLs continually reinforced my insider perspective.

27.5   Findings and Discussion

The following section will summarize results regarding the benefits of CBRT as an approach for teaching ELLs as perceived by the PLC members who participated in Dr. Flynn's CBRT professional development session. In addition, I will present findings and discuss participants' experiences within the Readers Theatre PLC that served as the main source of professional development and inquiry throughout the study.

27.5.1   Benefits of CBRT for Teaching ELLs

Quantitative and qualitative data analysis indicated that participants perceived CBRT as a relevant approach for teaching ELLs. Using the school district's ESOL Instructional Strategies Matrix as a guide, participants were asked to identify strategies that were embedded in the CBRT approach. The ESOL Instructional Strategies Matrix includes a list of 83 instructional strategies that is representative of literature on best practices for teaching ELLs (Echevarria, Vogt, & Short, 2016; Goldenberg & Coleman, 2010; Hill & Miller, 2013). Participants not only identified various strategies that they were able to incorporate while using CBRT, but they also indicated that CBRT allowed them to implement multiple strategies with ease. Instead of creating lessons and then going back to make revisions to meet the needs of all students, the teachers felt that accommodations were built into the CBRT approach. By design, CBRT incorporates ESOL instructional strategies such as modeling, repetition, varying complexity of assignment, explaining key concepts, and chunking of complex content, which offers a built-in support system for ELLs in the mainstreamed classroom.

Interview and online discussion board transcripts also revealed that CBRT could be incorporated at any time during a unit of study. Some teachers used their CBRT scripts to introduce a new concept, while others used scripts to reinforce information that had already been taught. One participant discussed revisiting one script every day throughout the unit and working with it for just 5–10 minutes, while another used CBRT scripts to introduce new lessons because it added to her students' "prior knowledge" and helped create an awareness of vocabulary and concepts that they would encounter during instruction. After discussing ways to implement CBRT with her colleagues, one teacher said,

"I found out that nothing really is wrong, as long as you follow the framework." This statement was reflected in the diverse ways that each participant chose to use the CBRT approach.

27.5.2   Role of the Professional Learning Community

While my primary focus during this study was to investigate the benefits of CBRT for teaching ELLs, a somewhat unintended, yet intriguing, finding was the participants' attitudes toward the PLC experience. Having personally participated in school-based (and often mandated) PLCs, I have not typically had the most positive experiences; however, it was evident within the interview and discussion board transcripts that Dr. Flynn's workshop, in addition to PLC members' sharing of resources and best practices, influenced participants' experiences and classroom implementation and was perceived as having a positive impact on their ability to utilize CBRT.

27.5.3   Collaborating with Colleagues Through the PLC

PLC members met twice per month – one time during a face-to-face meeting and the other time through their online discussion forum. During the sessions leading up to Dr. Flynn's workshop, members familiarized themselves with traditional readers theatre techniques, shared resources and experiences, and engaged in activities that helped connect their learning to standards-based instruction.

Participants enjoyed the opportunity to collaborate with their peers, some of whom they rarely have the chance to work with. Because Sandy Beach Elementary is such a large school and has between 9 and 13 teachers at each grade level, teachers rarely get the opportunity to work with all of their own teammates, let alone teachers at other grade levels. In addition, just as students learn from each other, participants recognized that teachers also learn from collaborating with others. They enjoyed hearing about others' readers theatre experiences during face-to-face meetings and reading about them on their discussion board posts. Participants also appreciated the websites and resources that were shared through the online discussion board.

Other benefits included the opportunity to hear others' experiences and to learn what worked for them and what did not. During meetings, participants shared follow-up activities that could be used to extend student learning such as using CBRT scripts to create text-dependent questions at different levels of cognitive complexity. Such exercises provided practice for creating meaningful questions and demonstrated how to extend CBRT and use it to develop reading comprehension skills. Engaging in such activities during PLC meetings enabled participants to brainstorm ways to implement CBRT as well as to showcase the many benefits offered by the approach.

27.5.4   Dr. Flynn's Workshop as Part of the PLC

Dr. Flynn's workshop engaged participants in an introductory lesson on CBRT, which she recommended using in the classroom to teach gestures and sound

effects and to increase student interest in the dramatic aspects of CBRT. During the interviews and discussion board posts, participants identified that experience, as well as their classroom experiences, as highlights of the workshop. They felt prepared to introduce CBRT in a way that would engage their students and allow for successful implementation.

Interviews and discussion board transcripts revealed that Dr. Flynn's CBRT professional development exposed the benefits offered by CBRT and enabled them to implement the approach with enthusiasm and confidence. Though the first half of the PLC provided background knowledge and some experience with readers theatre, Dr. Flynn's workshop was a turning point that enabled them to use CBRT to teach concepts from all content areas. After the workshop, PLC participants continued to meet and communicate through their discussion board, which enabled them to share experiences and materials and reflect on their practice. In addition, due to my relationship with Dr. Flynn as well as my prior experience with CBRT, I was able to assume the role of "expert" and continue to support CBRT implementation after Dr. Flynn's single professional development session.

Many participants viewed the CBRT professional development workshop that was presented by Dr. Flynn as the highlight of the PLC. That experience, in conjunction with sufficient time and structured follow-up activities, enabled participants to implement CBRT gradually and to refine their practice to best meet the needs of their students. The teachers chose to join the Readers Theatre PLC because they felt that their diverse students would benefit from a creative, non-traditional approach to reading and content area instruction. The fact that the PLC's content was immediately applicable to practice helped sustain the participants' motivation, commitment, and interest in this professional learning experience.

27.6   Implications and Recommendations

The purpose of this study was to investigate the benefits of CBRT for addressing ELLs' academic and linguistic needs. For teachers at Sandy Beach Elementary who were challenged daily to simultaneously teach language and academic content, CBRT offered a creative alternative to traditional content area methods. Although Dr. Flynn did not create CBRT specifically for ELLs, the non-threatening and interactive format made it ideal for students at varying levels of English proficiency. Though this case study focused only on one group of teachers' experiences and perceptions, the findings supported my assumptions that CBRT is a relevant approach for teaching ELLs. In addition, it illuminates the benefits offered by CBRT as well as a need for additional research that further investigates CBRT and similar programs that infuse dramatic techniques within literacy and content area instruction.

The current study also has important implications for the design of professional development and school-based PLCs. During much of the professional development offered by school districts, teachers are introduced to new approaches and materials in one session and are expected to return to their classroom and
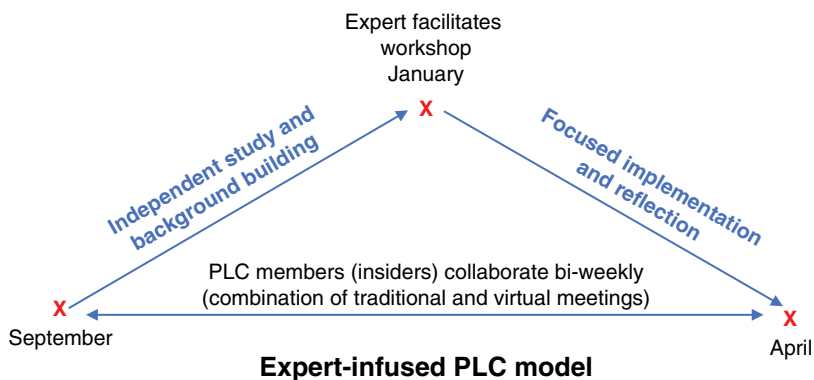
Figure 27.1 Visual representation of PLC model.

immediately apply what they have learned, often with little or no follow-up support. In order for professional development to be successful, it must be seen as an ongoing process instead of an isolated event (Loucks-Horsley et al., 1998). Establishing a PLC as the main form of professional development fosters a culture of collaboration and inquiry among participating faculty and offers teachers the opportunity to engage in sustained professional learning that is fueled by their own personal interests or challenges that are experienced within their classrooms or school community. Unlike administration- or district-facilitated professional development, school-based PLCs are likely to provide participants with more input regarding the goals, structure, tasks, and materials utilized throughout the inquiry cycle. The PLC model included in this study, which featured participant collaboration and self-exploration as well as professional development provided by an expert in the field, might be worthy of further investigation. Figure 27.1 represents the format of the PLC model utilized in this study.

Dr. Flynn's CBRT workshop was strategically placed in the middle of the PLC's calendar so that participants had the opportunity to engage in personal study as well as to collaborate with others before and after the CBRT professional development. In the future, it would be interesting to explore the impact of the participants' knowledge of readers theatre gained during the PLC on their ability to implement CBRT with fidelity. Teachers recognize the importance of activating and/or building students' background knowledge when introducing new content, so perhaps this also might apply to the design of professional development. Because PLCs are a common context from which teacher inquiry emerges, it is necessary to investigate various resources that can contribute to teacher learning.

27.7 Influence of Action Research on my Professional Practice

I began my action research journey as an elementary school teacher. I entered my doctoral program at the start of my second year of teaching, and my experiences as a doctoral student had an immediate impact on how I perceived and

approached my role as an educator. My exposure to educational theories, pedagogy, and research challenged me to constantly reflect on and attempt to refine my teaching practices. For every challenge that arose in my classroom, I sought a solution, and for every problem solved, a new question emerged. In the following section, I will reflect on how action research has impacted aspects of my own professional practice and present recommendations for how we can promote a culture of action research and inquiry in K-12 and higher education.

27.8 Promoting a Culture of Action Research in K-12

As an educational professional and doctoral candidate, I was accustomed to reading research reports and subsequently implementing seemingly innovative, research-based practices in my own classroom. While this was the norm for me, I recognized that for many practicing teachers, research generated by academics is often presented in a technical format that lacks practical implications and actionable items. As an elementary teacher pursuing a doctoral degree, I often felt isolated in my constant desire to read, learn, and implement change. My colleagues often seemed jaded and resistant to innovation, especially when initiated by district leaders or administration; however, in my experiences collaborating with teachers throughout our Readers Theatre PLC, I saw even the most disengaged teachers come alive and actively contribute to sharing and generating knowledge that could improve their teaching practice, and ultimately, student achievement.

27.9 PLCS as a Vehicle for Action Research

Cochran-Smith and Lytle (2009) suggest that PLCs can serve as an avenue in which teachers can collaborate to address challenges experienced in their classrooms. PLCs can be a source of empowerment for participants because they are able to determine which issues, data, or research to analyze as well as how each relates to the individual context of their school. Teachers are often resistant to professional development that is ordered from the top down and that proposes a one-size-fits-all solution that may or may not apply to their location. PLCs, on the other hand, are tailored to meet the needs of the true stakeholders in that they are facilitated by teachers to meet the needs of their unique students.

  I had learned about PLCs early on during my doctoral studies and remember being excited when my principal introduced this professional development option at the beginning of a new school year. I was quickly disappointed to find out that, in contrast to what I had read about PLCs forming organically, based on teachers' questions, interests, and/or concerns, our choices were limited to certain topics predetermined by administration based on their perceived needs. Literature suggests that this is a common characteristic of school-based PLCs, as is an emphasis on compliance with techniques for PLC implementation, such as reviewing norms, discussing the protocol at length, and completing reflection forms (Wood, 2007).

Within our school district, PLC participation and completion allows teachers to earn inservice points which are required for re-certification; therefore, they are often associated with extensive documentation for accountability purposes which is often unrelated to everyday teaching duties. When relying on extrinsic motivation such as earning inservice points or just going through the motions to meet accountability requirements, the true purpose of the PLC is lost. In my experience, the purpose of PLCs and the associated teacher inquiry seems to be misunderstood by many K-12 teachers as a result of school districts' attempts to regulate and mandate a one-size-fits-all solution for how to document student learning and collect and analyze data. I have personally participated in a PLC that did not really interest me but which I decided to join because I hoped that collaborating with my grade-level team would have a positive impact on my teaching practice. I collected data that was meaningless to my personal professional practice just so that we could complete the required documentation. When the various data cycles were complete, I did not feel as though I had achieved anything that related to the personal issues that I was facing in my own classroom.

I see potential for PLCs as a vehicle for sustained, collaborative teacher inquiry; however, district mandates for a certain type of documentation often draw participants' attention away from fully engaging in the process, as evidenced by Wood's (2007) work as well as my own personal experience. I believe that, if presented properly, PLCs can truly empower teachers to take charge of their own practice as they collaborate with colleagues to seek out solutions for challenges faced in their classrooms. Designating time and space for teachers to reflect and question their practices is the first step in creating a culture of inquiry within K-12, and if teachers believe that their voices will be heard and that their interests and needs are valued, perhaps we can demystify the concept of action research and integrate elements of practitioner inquiry through school-based PLCs.

27.10   Action Researcher/Teacher Educator

As a former K-12 teacher and current university instructor engaged in scholarship of teaching and learning, my inquiry is driven by my experiences in the classroom in response to the discrepancy between intention and reality, theory and practice (Cochran-Smith & Lytle, 1993). As an elementary teacher, I became aware of the cognitive and linguistic demands of an increasingly complex curriculum as well as teachers' lack of knowledge, resources, and professional development opportunities to meet student needs. As I transitioned to higher education, I also identified the need for teacher education courses to more adequately prepare preservice teachers to successfully educate students within the evolving climate of education.

My dissertation study's focus on teacher practices laid the groundwork for my current line of research, which is grounded in Vygotsky's sociocultural theory, specifically examining practical applications of scaffolding, mediation, and intersubjectivity in hybrid and online teacher education. As a teacher educator, my

job not only includes delivery of content related to my field, which is Teaching English to Speakers of Other Languages (TESOL) and Bilingual Education, but also explicit instruction on effective teaching practices.

As a full-time teacher educator, I have continued my action research journey by examining the online feedback and assessment process. As distance learning opportunities continue to increase, it has become increasingly important to examine how traditional teaching methods must be altered to match the new mediums in which we teach. Challenged and frustrated by my students' performance on critical assignments, I teamed up with a colleague who was experiencing similar issues. We began by soliciting student reaction and comments on our feedback and assessment practices, and used the data to develop and implement a multi-faceted feedback system for use in the online environment (Uribe & Vaughan, 2017), which we continue to reflect upon and refine each semester. This work continues to illuminate new challenges and opportunities for systematic action research into how I can positively impact student learning outcomes and simultaneously promote a culture of inquiry among undergraduate and graduate students that will ultimately influence their own future practice.

27.11 The Significance of Action Research in Teacher Education

In my courses, I constantly work to model methods and strategies that students learn about in class or read about in their textbooks. I also make explicit connections between theory and practice and challenge students to reflect on experiences within courses as well as those that occur while conducting field work. My students play an integral role in my own research, and at the beginning of each semester, I explain my work and how its purpose is to improve my teaching and ultimately, their learning experiences. Sharing this mindset with preservice teachers is another way to model effective teaching and must be reinforced throughout all of their coursework and field experience.

Due to the dynamic nature of public education, it is critical for colleges of education to promote a culture of inquiry among faculty and students. My undergraduate and initial graduate degrees were obtained from a university that emphasized the role of reflective practice and teacher inquiry. This approach was infused within all of our coursework, and we were required to complete an entire inquiry/action research project during our final semester before graduation. As I look back on my journey from K-12 teacher to university instructor, I realize that my early and consistent exposure and engagement in the inquiry process has paved the way for a career in which the line that exists between my teaching practice and my research is often blurred.

With the current state of education and its emphasis on standards-based instruction and high-stakes testing, many students graduate from high school with limited or no experience with the research process. While project-based learning and inquiry are hot topics in education, few teachers have the knowledge, resources, or support to use these approaches; therefore, when students

venture into institutions of higher education and, ultimately, teacher preparation programs, that might be the first time they are asked to reflect, examine their practices, and pose questions regarding their personal interests. Colleges of education must provide opportunities for preservice teachers and graduate students to engage in the inquiry process and investigate topics that are relevant to their local contexts. These experiences will enable them to better educate their own students and feed forward a tradition of action research to the next generation of learners.

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