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## **Action research in graduate teacher education: a review of the literature 2000–2015**

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This review explores the goals and challenges as well as the policy and programmatic implications of action research in graduate teacher education as evidenced in the published literature. This literature review looks specifically at how action research is being used in graduate teacher education programs as a content area and as a methodology in manuscripts published between 2000 and 2015. The literature suggests that adaptation of action research in graduate programs has evolved beyond the one-course model to an integrative theoretical and practical approach. The treatment of action research with respect to 'traditional' research in the academy is also discussed. Three goals for action research in graduate teacher education emerged from the review: action research as reflection; action research as participatory, critical inquiry; and action research as preparation for teacher leadership.

**Keywords:** action research; literature review; graduate teacher education

### **Introduction**

We need to rethink the nature of research, at least as it relates to practice. We need to reassess the role of the teacher in the classroom and in research. (Bracey 2009, 530)

The goal of this literature review is to explore the goals and challenges as well as the policy and programmatic implications of action research in graduate teacher education. This literature review looks specifically at how action research is being used in graduate teacher education programs as a content area and as a methodology. While the literature primarily focused on graduate teacher education programs in the United States, contributions from programs in other countries are included when they met the search criteria. Using Cochran-Smith and Lytle's 'The Teacher Research Movement: A Decade Later' published in *Educational Researcher* in 1999 as a springboard, we examined the literature published from 2000 to 2015. We also explored action research dissertations and theses published during this time period through ProQuest to offer additional insights into trends that are occurring in teacher education at the doctoral level. Our goal is not to be exhaustive, but rather to provide an overview of literature and offer recommendations for further research, programs, and policy. We have referenced pieces published before 2000 if they were essential as a context for contemporary work.

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EBSCO and JSTOR database searches were conducted to retrieve peer-reviewed articles in English-language journals related to the state of action research within graduate teacher education programs. Search terms included ‘action research,’ ‘teacher education,’ ‘teacher research,’ and ‘graduate education.’ Forty-seven peer-reviewed articles were retrieved from the EBSCO and JSTOR databases. Articles were excluded if they did not explicitly discuss action research in teacher graduate education programs or if they described action research projects in schools without apparent connection to a graduate education program. In addition, 13 books and nine chapters from five handbooks are discussed in this review.

Within the 15-year period included in this literature review, five handbooks or compilations were published on the topic of action research. Peter Reason and Hilary Bradbury (2001, 2008) edited two Sage handbooks on the general topic of action research. Author comments relevant to graduate teacher education in each of these editions are discussed in this literature review. It is significant that these two editions were released within a 10-year period, indicating the momentum that action research gained during the period. In addition, Sage published another handbook in 2009 edited by Noffke and Somekh that focused explicitly on educational action research. These compilation volumes provided valuable perspectives for this review.

In 2011, Saleh and Khine edited a volume titled *Practitioner Research in Teacher Education: Theory and Best Practices* that offers insights on action research as practice in schools and for professional development to improve teaching. One chapter in this text (Burnaford 2011) discusses practitioner research explicitly as it relates to graduate teacher education. Action research as professional development, a trend in the field for decades, continues to be an anchor in graduate programs where action research course work is evident. The trends toward action research as a critical approach to change and as a focus for social justice and a means for identity development enrich the field. It would seem that the strategies which have traditionally been used in explicit action research courses have, in recent years, been appropriated for courses that teach education students about critical, multicultural, and social justice. This trend continues as teacher education programs redefine their missions in diverse societies. We propose critical, participative inquiry as one of three goals in higher education programs described in the literature. This approach is not pervasive in higher education, perhaps because of the political and social pressure exerted on colleges of education to adhere to standards-based teacher preparation that is aligned with pre-Kindergarten–12 school goals.

In the 2001 edition of *The Handbook of Research on Teaching*, Zeichner and Noffke offer an extensive chapter titled ‘Practitioner Research’ in which they discuss the historical and ideological contexts that are highly relevant for action research by teachers. Zeichner and Noffke’s chapter provides essential context for the current literature review. They comment, as we have done in this review, on the criticisms aimed at action research over the past 50 years, noting the familiar and troubling claims that practitioners (i.e. teachers) are not properly trained to conduct research and that practitioner research is not as rigorous as more traditional academic research. They also refer to the positivist challenge that such research is too locally specific and not generalizable, and that teachers have highly demanding jobs that allow little or no time for research (2001, 299).

Zeichner and Noffke note multiple purposes for teacher research, including the improvement of practice, the understanding of a particular aspect of practice, a better understanding of pedagogy and practice more generally, and a desire to promote

greater equity and influence the social conditions for teacher learning and professional development (2001, 306–307). We mention these purposes because they are also relevant to the design of action research courses and programs in university programs. Zeichner and Noffke discuss the political dimensions of practitioner research that are also factors in the consideration of graduate programs' content. Finally, they address examples of scholarship that wrestle with the notion of such research as knowledge production, which is a central dilemma among teacher educators as they consider the import of action research. Zeichner and Noffke's chapter focuses on inquiry that is conducted in a P–12 school context and provides a comprehensive review of related policies and practices in the educational field more broadly in the United States today. The literature in the present article considers action research within the university college of education setting in which teachers are prepared and supported at the graduate level.

Through the examination of relevant articles, book chapters, books, and handbooks, a structure emerged that helped to guide our organization. It became clear that many programs were not simply teaching action research; they were using the dispositions embedded within the process to guide their programs and support teachers in professional goals. For example, programs with a focus on collaboration might deepen the collaborative aspects of the traditional action research cycle with multiple collaborative opportunities that immerse students in dialogue.

There are several types of published pieces pertaining to master's and doctoral programs. First, there are studies completed by students in such programs. Second, there are pieces that describe the structure, format, and nature of courses in the programs related to action research typically written by professors or by professors and their students. Finally, there are studies by university teacher educators about their work with students in action research courses, including those engaged in professional development school partnerships with districts and individual schools (Chant 2009; Crocco, Faithfull, and Schwartz 2003; Evans, Lomax, and Morgan 2000). We chose not to include textbooks that explicitly teach how to conduct action research in our review, as we are most interested in how and why action research is being infused in graduate teacher education programs. Selected research methodology textbooks are discussed because they relate to the situating of action research in graduate education research methodology course work.

The evolution of action research in graduate teacher education builds on Fullan's (2010) notion that educational reforms should fit the needs of the profession as it grows. Instead of the 'one size fits all' approach, the objectives and goals of a program or school can and should influence the way in which teachers learn and change. The literature suggests that such adaptation has occurred with the integration of action research in teacher education programs. We describe three goals represented in the literature for including action research in graduate teacher education, followed by a discussion of the unique challenges and opportunities for action research in doctoral education programs. We also propose recommendations for research to inform higher education faculty and policy decision-makers regarding action research in graduate programs to support teachers as change agents. We begin with a discussion of the challenges and confusions regarding action research 'as research' in the academic setting.

### **Action research in the academy: situating within and apart from traditional research**

A review of action research in graduate teacher education would be remiss without a consideration of the challenges of how, whether, and to what degree this approach is considered legitimate research in the academy. Further, the literature is informed by the persistent issues regarding the qualifications that teachers in graduate programs should have in order to conduct research in schools and communities and the requisite coursework in research methodologies that could and should prepare them for such studies.

Many have questioned or criticized the lack of effective incorporation of research into professional education or graduate teacher education programs (Kincheloe 2003). Colleges of education typically do require graduate students to take courses in basic research, but master's students in particular are seldom asked to complete original research studies. Also, when they do so in their own schools or classrooms, they are 'reluctant to say that they really did research' (Kincheloe 2003, 40). Part of the challenge lies in the treatment of applied or action research in widely used methodology textbooks for graduate students. We examine two texts widely used in graduate programs published more than 30 years apart and their references to action research.

Bogdan and Biklen's landmark text, 'Qualitative Research for Education: An Introduction to Theory and Methods,' notes that 'the roots of action research run deep' (1982, 222). They acknowledge that 'traditional scholars do not view it as 'real' research (1982, 214–215) and discuss the challenges that scholars have offered for action researchers in the academy. Bogdan and Biklen suggest that action researchers largely rely on methods including observation, interviewing, and document analysis, situating action research within the qualitative domain.

Often, Bogdan and Biklen directly address graduate students as their audience in this text. They ask the question 'is action research objective?', acknowledging that this is a central issue in the academy: 'This question is important to clarify, particularly if you are a graduate student in an academic setting where concern with objectivity in research is high' (1982, 217). Bogdan and Biklen underscore the importance of honesty as a means to address the question of objectivity in action research: 'Action researchers believe that objectivity is related to your integrity as a researcher and the honesty with which you report what you find' (1982, 217) and 'For action researchers, objectivity means being honest, going to the source to gather data, and eliciting the views of those involved in the issue' (1982, 218). In 1998, Denzin and Lincoln explored action research within the qualitative research domain, describing it as 'interventionist work' (1998, 169) in which traditional research subjects become partners in the research. They too note the importance of honesty in this approach to research in which partners are seen as participants in a constructivist paradigm (1998, 169).

Bogdan and Biklen note that many in the world outside academe conduct research for practical purpose, defining action research as a type of applied research in which 'the researcher is actively involved in the cause for which the research is conducted' (1982, 215). They situate action research with evaluation and pedagogical research, all of which 'build(s) upon what is fundamental in the qualitative approach' (1982, 221). These scholars suggest that the goals of these types of research include action, training, and decision-making, which makes them different

from basic research. These distinctions are important in a consideration of action research within a graduate program, but Bogdan and Biklen's thoughtful discussion also suggests an important role for action research for graduate students who are concerned about change in real world contexts.

Frankel, Wallen, and Hyun (2015), in the ninth edition of *How to Design and Evaluate Research in Education*, do not situate action research within qualitative methods in their overview of research methods handbook, but rather offer a separate section devoted to 'Research by Practitioners,' with one Chapter titled 'Action Research.' They note that many methodologies can be used in action research, 'although usually in a somewhat simplified and less sophisticated form' (p2015, 592). 'Experiments, surveys, causal-comparative studies observations, interviews analysis of documents, ethnographies – all are possible methodologies to consider' (2015, 592), although they do underscore the frequency of action researchers using interviews, observations, and document analysis, consistent with Bogdan and Biklen's claim. Frankel, Wallen, and Hyun caution against the collection of 'merely anecdotal data' (2015, 592), and warn against 'data collector bias' (2015, 593). They argue that action research studies are not generalizable, reminding readers that 'one cannot recommend using a practice found to be effective in only one classroom!' (2015, 593).

Frankel, Wallen, and Hyun present a clear juxtaposition of action research and what they term 'formal research,' further isolating and differentiating action research from 'other' research. This is troubling as such texts are often used in methodology courses at the graduate as well as undergraduate level. The list of possible methods Frankel and colleagues suggest for students, as well as their delineation of action research as separate from other research, underscores the concerns that research methodologists raise regarding the competence and capacity for action researchers to conduct systematic and credible studies as graduate students. This perspective also raises questions regarding the number and nature of methodology courses that students need in order to engage in research as graduates of their universities.

Cochran-Smith and Lytle (2009) acknowledge the difficulty that university-based communities have with action research, specifically as implemented by teachers. For them, the issues surrounding action research in the academy are not only methodological ones, but are also related to the lack of recognition of the importance of teacher knowledge by university professors. They argue that the result of a lack of attention to action research in colleges of education can only result in continued suspicion regarding research among practitioners as well as a lack of authentic information about classrooms and schools among the university researchers.

Some scholars have taken issue with the isolation of action research from formal research and have highlighted its role in colleges of education that recognize their role in connecting research with authentic schools and classrooms. Hollingsworth (1995) and Wells (2009) claim that action research has become legitimate in the United States as a form of inquiry because of the demand for local data related to local problems to inform curriculum. Hollingsworth, in conjunction with Cochran-Smith and Lytle (1999, 2009), Zeichner and Noffke (2001), and others, has been instrumental in advancing action research in the literature which has directly affected its growth in graduate education programs across the country. Ainscow (2008) discusses action research as a tool to investigate and foster inclusive practices to support diversity in schools, noting his own collaborative action research program as a university scholar in conjunction with groups of schools, highlighting the potential

for such partnerships that incorporate university personnel, practitioners, policy-makers, and other stakeholders to seek and find practical solutions to problems.

The question nonetheless remains regarding how graduate students are prepared to conduct credible and honest action research, including what types of methods courses they need and how their studies are represented and presented in academic conferences and publications. These issues are further complicated by the ambivalent relationship that action researchers have had with the Institutional Review Board (IRB) process in universities. In the context of the consideration of human subjects, the IRB process raises ethical as well as methodological issues, including the fundamental question once again of what constitutes 'research.' Practitioners tend to apply the term more widely than IRBs (Pritchard 2002, 4). Practitioner researchers are not always interested in generalizable findings, nor do they necessarily ascribe to the practice of designing a study and adhering to that design as circumstances change and the study progresses. These perspectives may not be consistent with how university faculty who serve on IRBs view research (Burnaford 2011).

This dilemma has been problematic for graduate action research projects and coursework represented in or excluded from the literature. Universities have addressed the challenge in several ways. Graduate students in some programs have completed IRB applications as course requirements and the IRB reviews applications from those classes. The applications may be standardized and the guiding professor provides a generic design in order to ensure that all studies address issues of compliance. A second approach is to avoid the term 'research' altogether and term the studies as 'inquiry.' Graduate students who complete inquiry projects do not need IRB approval, thereby acknowledging that the studies they complete are not actually research at all (Burnaford 2011). The University of Florida, under the auspices of its Center for School Improvement, has such coursework and programs for practicing teachers as well as beginning teachers that they term 'inquiry.' A third approach is one that seeks to address the challenges of cultural and institutional norms for research. In this case, university faculty who teach action research work with IRBs, using 'practical intelligence and political will' (Pritchard 2002, 12), in order to clarify definitions of research and ensure that ethical issues are addressed by action researchers in their courses. These issues of methods used, the contrast and similarity to more formal research programs, and the approval or acknowledgment of action research by IRBs all have an impact on the presence of action research in the literature.

### **Three goals for action research in teacher education programs**

Our examination of the literature revealed that the choice to include action research in a teacher education graduate program and the depth to which it is implemented is often dependent on the goals and objectives of the program. The structure and format of action research studies, along with modifications made to the traditional research cycle, mirror the needs of the university, the students, and the communities being served by the program. Through an examination of the literature in this field, we can begin to see the evolution of action research as a staple in many teacher education graduate programs with somewhat distinctive points of emphasis in different programs. One trend worth noting is that, as action research grows in depth in graduate teacher education programs, it is designed more as an embedded experience, a cross-course experience, and less as a single capstone course



(Amrein-Beardsley et al. 2012; Evans, Lomax, and Morgan 2000; Loughland and Bowen 2012; Shosh and Zales 2007).

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 simultaneous development of research skills and practitioner dispositions. The stated goals for the integration of action research for teachers suggest the individual structure and format for the programs. This is perhaps the most valuable ‘sell’ for graduate programs as they can continue to address the need to develop more knowledgeable teachers, encourage improvement in student learning in schools, and contribute to the professionalization of teaching. The following sections discuss three goals inherent in graduate teacher education programs: action research as reflective practice; action research as participatory, critical inquiry; and action research as teacher leadership to effect change in schools and communities.

### *Action research as reflective practice*

Reason and Marshall’s chapter titled ‘On Working with Graduate Research Students’ in the first edition of the Sage *Handbook of Action Research: Participative Inquiry and Practice* (Reason and Bradbury 2001), reminds readers of the importance of the ‘personal process of inquiry’ (Reason and Marshall 2001, 411) inherent in action research. The process is as important as the content, they note. Students come to graduate education with an array of life experiences and issues upon which they draw when they re-enter the university. The challenge then is to build upon those experiences while also helping teachers move from ‘internal to external engagement’ (2001, 416) through the research process. Reflective practice through inquiry is part of the process for such engagement, as is collaboration with peers and communication with the larger intellectual community.

Sage published a second edition of the handbook, *The Sage Handbook of Action Research: Participative Inquiry and Practice* (Reason and Bradbury 2008), in which two chapters are relevant to the goals of this review. Taylor, Rudolph, and Foldy discuss the theoretical concepts that inform the teaching of what they term ‘action science/action inquiry’ (2008, 656) at the university level. They are university professors who teach graduate students the theory behind reflective practice. As this literature review indicates, reflective practice is often a primary goal for teaching action research processes to teachers at the graduate level.

Morten Levin’s chapter in the same handbook, titled ‘The Praxis of Educating Action Researchers,’ also addresses the issues of teaching action research in the university, without references to colleges of education or teacher education specifically. Levin notes that much teaching at universities ‘unilaterally focuses on reflective and theoretical training’ (2008, 670). The integration of action research, however, demands a different approach in the social sciences in which the concrete practical processes are also essential as part of the pedagogy. This is of course the essential challenge for action research in graduate education.

The Master of Teaching program in Australia uses the reflective practitioner model as its foundation. Communities of inquiry are used to examine case studies and develop knowledge and experiences in students, with the ultimate goal of achieving phronesis. This program ‘was founded on a phronetic ideal where practical wisdom is derived from the critical analysis of teaching practice, both of others,



via case studies/observation, and the researcher/practitioner's own thorough critical reflection in a community of inquiry' (Loughland and Bowen 2012, 357). Such programs combine the practical notion of teaching in content fields, with the perennial action research goal of fostering collaborative reflection among teachers. But the value added stems from the critical analysis that teachers learn and can continue beyond the graduate program.

Reflection is a cornerstone of any action research cycle, and the ability to reflect is often tied to quality teaching. Dana and Yendol-Hoppey (2014) discuss the importance of intentional reflecting as it relates to teacher inquiry and the action research process. While many teachers reflect on the day's events, students, and the future, action research aims to show how making planned and intentional reflection visible can promote not only a change in the teacher, but also the educational context. Many of the graduate teacher education programs included in this review recognize the strong connection between reflection, inquiry, and change, and modify or build their programs with this as a primary objective. These modifications highlight the importance of the skills gained through learning the action research process, but also the flexibility that comes with using action research both as content knowledge and a means to impact teachers' personal growth.

Lebak and Tinsley (2010) studied a Master of Arts in Education program that used the tenets of adult and transformative learning theory and action research to help teachers develop into reflective practitioner researchers. Using action research as the capstone experience, instructors made modifications to the traditional cycle and asked students to engage in multiple spheres of reflection using weekly peer-group collaborative sessions. Another modification involves the mandatory use of taped teaching sessions as a part of the weekly reflections. Dialogue around videos was the foundation of each collaborative session. The authors conclude that both the expanded reflection opportunities and the video analysis deeply influenced teachers' practice and built the dispositions of both reflection and inquiry.

In a study of a single action research course, Turner (2010) simultaneously conducted her own action research study on her course while her students grew in their own knowledge of action research. Modeling the process for them invited students to take part in two roles, as participants and as researchers. Christenson et al. (2002) used the same approach, with eight doctoral students and the professor co-teaching an action research course at the master's level. Using action research as a vehicle, the doctoral students were able to sharpen their own skills as reflective teachers and researchers while modeling the basics of action research for their students.

While action research can have a powerful impact on a teacher's reflective practice, inquiry, and belief system, all programs have not experienced the same amount of success. Teachers need the opportunity to practice authentic reflection through their own research, not simply through simulated experiences. In programs that guide prospective teacher researchers only through the planning phases of a project without implementation, teachers do not report significant impact on their growth as a reflective practitioner or researcher (Christenson et al. 2002; Lustick 2009). The idea of teachers completing a full research project is an essential component to building the dispositions of quality teachers and researchers. These studies indicate that the action research experiences of graduate students in these programs consistently have an impact on a teachers' ability to reflect on their own practice and use inquiry to address challenges in their classroom. In addition, there is a secondary

level of impact on professors in these programs, who also report growth in their own reflective practice when modeling the action research process for their students.

### *Action research as participatory, critical inquiry*

Reason and Bradbury (2001) describe the origins of action research in the teachings of Marx, Gramsci, Freire, and others who were engaged in changing social structures and practices for the benefit of the oppressed or marginalized. Action research draws on many theoretical frameworks and methodologies, but Reason and Bradbury argue that action research is fundamentally emancipatory and participatory. Such a perspective has been the underpinning more recently of action research, integrated into teacher education course work as a specific method to interrogate practices related to equity, student voice, and diversity in schools (Akom 2009; McIntyre 2003; Mulhearn Blasco, Falco, and Munson 2006; Rogers et al. 2007; Sax and Fisher 2001; Storms 2013). Reason (2008) articulates a set of arguments that link participatory action research with critical theory associated with the Frankfurt School and Jurgen Habermas, claiming that this connection actually contributes to a new definition of action research and its purpose in schools and teacher education.

Such critical action research studies notably appear in journals not particularly associated with action research, such as *Equity and Excellence in Education* and *Multicultural Education*. For professors in these fields, graduate-level action research courses represent ‘an advocacy-based approach to inquiry that is participatory and democratic’ (Storms 2013, 33). Such a perspective is grounded in the work of Price (2001) and Price and Valli (2005), in which the theoretical underpinnings of action research are explicitly intertwined with the goals of social justice education. This connection shapes the content of action research courses in which students do not simply engage in reflection, but rather are led systematically in critical reflection and critique of schools and schooling in order to see themselves as change agents. Storms proposes that her interview study of students’ experience with action research indicates that learning about their own practice and about the process of change for social justice has prepared them for advocacy.

Crocco, Faithfull, and Schwartz (2003) explored the connection that exist between a professional development urban high school and a college of education using action research to validate curriculum and assessment practices for a diverse student population. In this unique relationship, master’s students worked as interns in the professional development urban high school to conduct research that would assist the school in challenging state policies proposing a change from a portfolio assessment system to standardized tests to assess learning. The school operated with ‘the changed understanding of the role of teacher, now seen as knower and agent in the classroom, rather than simply as transmitter of knowledge’ (2003, 22). Master’s students simultaneously honed their research skills through this project and were able to experience social justice education taking place at the professional development urban high school. This initiative demonstrates how action research can be directly connected to the emancipatory goals of the classroom teacher or school, although the authors note that such partnerships are not without logistical and political challenges, both at the school site and at the college.

Studies by graduate students demonstrate that action research is a means to explore equity as well as pedagogical issues within content fields such as mathematics, science, foreign language, the arts, or English (Capobianco, Horowitz, and

Canuel-Browne 2004; Crookes and Chandler 2001; de Freitas 2008; Groenke 2010; Johnson and Button 2000). Such trends suggest that action research may no longer be the purview of a specific set of professors committed to its methodology, but rather suggest that action research is more widely accepted as a means of teaching content that is critical, theoretical, and practical in its potential (Gerlach 2000; Winicki 2006). This embedding of action research in content courses may be politically wise, given the emphasis of policy-makers on content fields in teacher education. It may also be a valuable means to educate content teacher specialists about the potential for critical, social justice-oriented approaches to their fields.

Blasco, Falco, and Munson (2006) describe a program in which critical content was taught through action research projects. Teams of graduate students were paired with families of children with significant, multiple disabilities in order to ‘design, implement and evaluate a project to support foundations of self-determination of the child’ (2006, 67). While gaining the experience of working directly with the families in the communities, students helped to close the gap between university classrooms and the needs of the surrounding communities. Using action research in an authentic manner that is directly connected to student and community can give students and teachers the voice and platform for change. For example, in another study, Groenke (2010, 91) asked her action research students to complete an ‘equity audit’ at their home school to ‘raise the consciousness of the beginning English teachers ... as they come to view themselves as potential school leaders and change agents.’ Through the careful examination of inequities that existed within their own community, students in Groenke’s program focused their action research projects on further examination of the discovered inequities or strategies to elicit change.

Rogers et al. (2007) examined the impact of action research on 114 master’s-level students after a single course titled ‘Teacher as Researcher.’ Teachers reported that action research was a vehicle to establish more personal relationships with students and gave them a voice in the classroom. Johnson and Button (2000) reported the impact of an on-site action research course in the content area of language arts on teachers’ sense of empowerment. Teachers no longer quietly accepted directives ‘without giving the matters at hand considerable thought. They began to ask a great many questions beginning with the word *why*’ (2000, 118; original emphasis). These outcomes speak directly to the work of Reason and Bradbury (2001), building emancipatory and participatory experiences for both the teacher and the students.

### ***Action research as teacher leadership: effects on schools and communities***

Over the last decade, programs at the master’s level have been developed with particular attention to the roles that teachers with graduate degrees play in their schools. As the needs of schools and students grow, roles with titles such as curriculum specialist, professional development specialist, learning team facilitator, and department chair indicate that teachers are moving into these positions and calling upon different skill sets from those they learned in initial teacher preparation courses. Simultaneously, graduate degree programs for teachers have evolved to include complete programs or course work to address the needs of these new positions. Consistent with the trend of expanding the application of action research methods beyond discrete courses, the literature includes manuscripts that describe action research as an element in the preparation of teacher leaders and mentors at the graduate level

(Carboni, Wynn, and McGuire 2007; Crocco, Faithfull, and Schwartz 2003; Evans, Lomax, and Morgan 2000; Shosh and Zales 2007).

Lieberman and Miller (2004) propose that there are three specific roles for teacher leaders: as researchers of their own practice; as scholars with work disseminated in the field; and as mentors. Katzenmeyer and Moller (2001) more explicitly divide teacher leadership into three categories with roles or associated tasks: teacher leaders as mentors, facilitators, and trainers; teacher leaders in specific roles such as department chairs, action researchers, or task-force members; and teacher leaders as partners with parents, school boards, and community organizations. These roles and categories for teacher leaders suggest the need for training of teachers to engage in action research, not just at the classroom level but also at the school and/or community levels. Bond (2011) proposes that these skill sets should be a serious consideration for the preparation of preservice teachers in the university at the graduate and undergraduate levels.

Valli et al. (2006) examined the efficacy of a master's program with a focus on inquiry that drew upon the theoretical framework of the National Board for Professional Teaching Practices, including analysis of student work and videos of practice, both core components of data in many teacher research projects. The researchers noted this paradigm for program evaluation that explicitly named the goals of influencing practice, building teacher leadership, and affecting student learning as cornerstones for inquiry by students. Clemson-Ingram and Fessler (1997) similarly outline the need for such teacher leadership approaches to teacher education and describe the program at Johns Hopkins that was one of the first to incorporate action research as it relates to leadership for teachers. Importantly, the action research course at Johns Hopkins is common to all of the master's degrees in education and 'encourages teachers to become research-literate and to develop a disposition to consult research to solve their daily problems' (1997, 103). In other words, teacher leadership as an approach to problem-solving embedded in systematic research is not just particular to certain teachers but to all who seek advanced degrees.

Warren, Doorn, and Green (2008) investigated teacher beliefs and their capacities as researchers as a result of a teacher education graduate program at Azusa Pacific University in which action research was a core subject. The mixed-methods study indicated that teachers did change their sense of professional identity and expertise as well as their relationships with their schools. Through action research experiences, teachers in the study were equipped with skills and knowledge that could serve as catalysts for change in their disciplines.

Immersion in the literature of pedagogical fields and content areas is an essential component in developing action researchers who become or are teacher leaders (Carboni, Wynn, and McGuire 2007; Dana and Yendol-Hoppey 2014; Turner 2010). It is essential that teachers see how the research they are doing fits into the larger context of their content fields and that they be able to make connections between their inquiry questions and the published work of other teacher leaders. Action research is a successful tool to connect teachers with the literature and highlight the importance of examining published work before launching research to see what others have learned (Johnson and Button 2000). If one of the goals of teacher education programs is to bridge the gap between theory and practice, then coursework should equip teachers with the knowledge to become practitioner-scholars who are ready to take a role in changing the educational landscape (Sela and Harel 2012).

Honigsfeld, Connolly, and Shannon (2013) provide a documentary account of a master's program capstone action research experience over a period of 10 years. They surveyed faculty and graduate students and then analyzed documentary evidence from completers to determine the professional goals and interests of participants, the feasibility of the research in terms of participants' current employment and graduation requirements, and the potential roles for university faculty to support participants in the research. The researchers found that, although action research needed to be situated in one course, the goal was also to encourage teachers to engage in such inquiry beyond course work, making the teaching and evaluation of action research courses complex. Further, professors acknowledged they had little impact on school changes but still believed they held important roles as supporters of teachers' initiatives beyond the action research preparation they received. The teacher education faculty in this study believed in the role of action research as professional development, but also reported the challenges to determining the actual impact of the graduate program action research on schools and classrooms. Indeed, the call to label action research as a form of professional development is both an asset (Chant 2009; Turner 2010) and a criticism offered by those who question teachers' time and expertise to engage in such research (Frankel, Wallen, and Hyun 2015).

Sax and Fisher (2001) describe an innovative interdisciplinary master's program designed explicitly tailored to the needs of a school district in southern California. The program was offered on school site rather than at the university, with three core courses focused on the implementation of an action research project. Teachers in the program collected data around Essential Questions, such as 'What is a good student?,' and came together several times a month to compare and synthesize data around such common questions. The researchers determined that the impact of this approach occurred for teachers on three levels: personal, professional, and political. Regarding the latter, they report that teachers 'were no longer willing to be passive members during staff meetings, but rather began articulating the insights discovered during their research' (2001, 78–79). The question remains for future research whether such university-based course work – whether offered on campus or on school sites – does result in sustainable improvements in classrooms, schools, and communities over time or whether such a goal is the purview of graduate programs for teachers.

Zeichner's (2001) study of teachers in the Madison, Wisconsin school district represents another example of research to determine the impact of action research methodology on practice after university coursework is completed. He reports that, after examining 400 such studies, teachers set out to improve their practice, better understand their practice, promote equity, and change the conditions of their practice (2001, 277).

Shosh and Zales describe a model at Moravian College in the United States for 'the transformation of program graduates from teachers to teacher action researchers to teachers as agents for systemic change that occurs as teachers conduct a series of teacher action research studies in their classrooms' (2007, 257). Such a statement reveals a clear shift from a single action research course in a program to an intentional embedding of inquiry throughout a program. The authors describe a teacher education model in which teachers are gradually encouraged to assume the responsibility for their own development through not just one project, but several action research projects focused on student achievement, student engagement, and social

justice (2007, 258). This is a radically different perspective on what experienced professionals in schools need to continue to grow and learn through graduate education as teachers and teacher leaders.

University of Notre Dame Australia Professor Hine (2013) discusses the place of action research within a Master of Education degree and within the teaching profession. Hine teaches the action research course at his university and provides a brief theoretical and practical background of the discipline in this article as well as a description of the content of the course that he teaches. Hine clearly articulates what seems typical of many action research requirements at the master's level in that students are asked to engage in a collaborative problem-solving process that focuses on an authentic issue within a real-world school or community setting. He stresses the value of such an endeavor, in that teachers are placed in small groups to support their action research. He also notes the obvious connection with valuable professional development practices learned as teachers and leaders that could influence future practice upon graduation. These are central tenets of the rationale for incorporating action research in master's and doctoral programs; that is, its value as a professional development opportunity that ultimately influences schools. Hines writes: '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' (2013, 161).

Gordon Wells (2009) describes his intentional shift in focus to collaboratively conduct research in classroom alongside teachers in a conscious attempt to cross the school–university divide. The project was an extension of a MEd program during which the teachers had learned to conduct action research and participate in 'dialogic inquiry' (2009, 50) with professors and peers. These follow-up projects examine whether and how teachers can sustain such collaboration and continue to learn and grow through action research after a degree program has ended. Such programs represent the intentions of some graduate program faculty to design programs that relate to and promote positive practice in schools and communities. More studies are needed for evaluating such programs in terms of their impact on graduate students in the short-term development of action research projects as well as in the long-term changes that are possible in classrooms and schools when teachers become change agents and leaders.

### **Action research and doctoral students**

For this literature review, the ProQuest database was used to investigate action research dissertations. Search terms 'action research' and 'methodology' were used as the primary terms, and additional terms were combined to narrow the result to fields related to teacher education. Twenty-one different terms were used along with the first two search terms in order to locate action research dissertations written in the area teacher education. The goal was not to capture every action research dissertation in the area of teacher education over the last 15 years, but to look for trends that may exist. As the momentum of action research in graduate education increased over the years, we were curious to see whether there was an impact on the use of action research as a methodology in dissertations. We examined 276 action research dissertations from 2000 to 2014 to address this inquiry. While there is not a significant difference in the number of action research dissertations produced from



either an EdD program or a PhD program, there is an upward trend in the use of action research as a methodology over the last 14 years (see Figure 1).

In 2005, with a second edition in 2014, Herr and Anderson's text *The Action Research Dissertation* provided graduate programs with the theoretical rationale as well as a how-to guide that provides a framework for doctoral faculty and students in designing and implementing credible dissertations using action research as a methodology (Herr and Anderson 2005, 2014). In 2006, the journal *Teacher Education Quarterly* published a special issue on the theme of 'action research for empowerment and transformation' (Levin and Merritt 2006, 3) in teacher education that featured credible action research projects implemented by graduate students and experienced teachers (Cooper 2006; Esposito and Smith 2006). This themed issue also probably contributed to the continual increase in theses and dissertations over the years immediate subsequent to its publication (see Figure 1).

At the same time, the period between 2000 and 2015 has witnessed debate in the field regarding the role of research more generally in EdD and PhD programs in Colleges of Education (Guthrie 2009; Shulman et al. 2006). Shulman et al. claim that the PhD degree should be designed as 'full-time, research-intensive program,' as distinct from the EdD that could be a '3-year, part-time program with a practice emphasis' that would not include a dissertation (2006, 25). This debate is important for the current literature review in that action research has apparently been applied in both contexts, for EdD projects as well as for PhD dissertations. Further research is warranted on the research products of such programs in terms of quality, significance, and relevance, as well as the policy implications for designing rigorous graduate teacher education programs. The literature includes descriptions of such programs that have explicitly addressed these challenges.

Anderson, Herr, and Nihlen (2007) discuss how action research benefits from a collaborative graduate school environment in which stakeholders come together to research problems and provide participants with a supportive context. Teacher

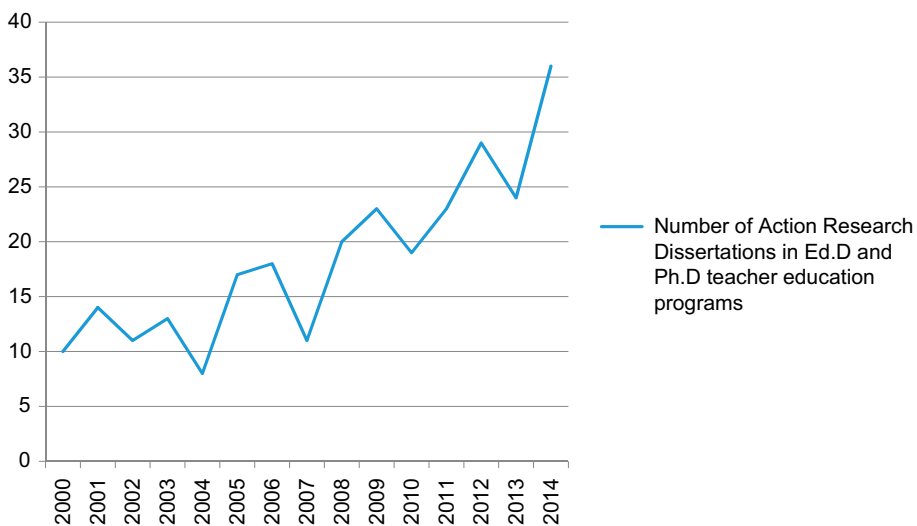


Figure 1. Growth in action research dissertations and theses from 2000 to 2014.

education graduate programs have used action research as a means to build a collaborative nature in teachers by modifying the traditional research process to provide teachers with enhanced collaborative experiences. Amrein-Beardsley et al. (2012) examined an innovative EdD program where graduates were grounded in learning as a community. Students take part in three ‘communities of practice’ throughout their program; a cohort group, Leader–Scholar communities, and their dissertation committee. The Leader–Scholar community consists of five to seven students and two professors who focus on how to support learning as it connects to action research. With the constant connection to multiple action research cycles and dissertation work, faculty communities have also emerged for the purpose of studying the program itself.

Grogan, Donaldson, and Simmons (2007) describe the theoretical and practical implications for an action research approach in an EdD program for part-time leadership students, as per Shulman et al., proposing that the EdD capstone experience should be targeted toward transformative practice, as opposed to the PhD dissertation experience that is intended to prepare future researchers.

Osterman, Furman, and Sernak (2014) report on an exploratory study in which they gathered documentation about the use of action research in doctoral programs in educational leadership. Their survey revealed that action research is used infrequently to meet dissertation requirements, although the inherent goals for participation, collaboration, and social justice as benchmarks of action research make the approach compelling for school leaders. While this debate continues, graduate students and faculty advisors continue to explore the potential for action research in capstone and culminating research projects with the perennial challenge of addressing programmatic expectations for research, particularly in programs where there are capstone projects but no dissertation requirements (Burnaford 2011).

## **Conclusion**

This literature review has discussed the trends and challenges in teacher education programs with respect to the integration of action research. We have loosely categorized the literature from 2000 to 2015 in terms of three themes that have characterized the goals and related structures for action research in graduate programs within teacher education. This means of organization is intended to evoke continued discussion in the profession with respect to the role of action research in supporting experienced teaching professionals in collaborative, leader-oriented systematic inquiry that improves schools and classrooms.

Cochran-Smith and Lytle (2009) proposed the term ‘inquiry as stance’ to indicate that action research can be conceptualized, not as a discrete and time-bound project, but rather as a frame of mind that is consistent and relevant for research, policy, and practice. Action research, then, is not separate from theory or context and is part of educational research, not apart from it. The literature suggests that these positions are by no means universally accepted among researchers; the tensions around the role, import, and positionality of action research are therefore unavoidable in graduate teacher education programs that serve in partnership with schools and state departments of education. Bond and Hargreaves assert that:

... when practitioner researchers take an inquiry stance, they are engaged in work both within and against the system – an ongoing process problematizing fundamental

assumptions about the purposes of the existing education system and raising difficult questions about educational resources, processes, and outcomes. (2014, Leadership, para. 2)

Action research for practitioners is both an insider and outsider activity that is not always a comfortable position for teacher educators in colleges of education.

We propose three considerations for universities with respect to the role and purpose of action research in graduate teacher education programs. First, graduate teacher education programs sanctioned by states and university boards should articulate their goals regarding the relationships they aspire to support between colleges of education and schools. Action research is and can be an effective conduit for fostering such relationships to benefit all learners. Action research is increasingly being applied, not just in discrete courses so named, but also in courses across the curriculum to encourage teachers to see themselves as change agents who are continuously learning how to participate in social justice education and teach in diverse classrooms and communities. Action research serves as a format for deeply collaborative learning among participants in graduate programs where collaboration is central to their missions (Du 2007). More research is needed regarding whether and how university programs are meeting these context-specific goals for their graduates.

Second, policy-makers in colleges of education and the field at large need to consider how they perceive and teach action research for consistent integration of theory and practice. Scholars of action research can and do contribute to a dialogue about the meaning and practical use for research that matters in school and community contexts, as this literature review attests. Ball and Forzani asserted that 'schools of education need to embrace unapologetically the worlds of both practice and scholarship' (2007, 537). Such a stance will require dialogue and intentional partnerships between schools and colleges of education that document and disseminate procedures as well as outcomes related to teacher and student growth as outcomes that can further inform policy.

Finally, policy-makers give short shrift to the power of action research as participatory and emancipatory pedagogy if they do not demand quality criteria for such research in graduate programs. Similarly, scholars and teachers teaching action research in universities must monitor and enhance criteria for action research theses and dissertations articulating the similarities and differences between such products and traditional research. Zuber-Skerritt and Fletcher's (2007) contribution to this discussion from the Griffith University, Brisbane, Australia merits further dialogue in the action research academic field. They offer checklists and definitions that may help those teaching and participating in action research in higher education to move beyond idiosyncratic means of assessment to more generally accepted criteria for quality. Such instruments can be shared and adapted for use to determine what constitutes quality writ large and applicable in local contexts.

Anne Lewis (2009) wrote a Washington Commentary in *Phi Delta Kappan* entitled 'Researching What *Really* Works in Education,' in which she gently chides the American Educational Research Association for its apparent lack of attention to how and whether schools and teachers actually use research. She proposes that one strategy which may work is a grassroots approach in which partnerships engage university researchers and school personnel 'focusing research on issues practitioners say are important to them' (2009, 540). This charge offers one response to the challenges regarding methodological expertise and the conceptualizing of action research

in terms of theory and links to practice. Hopefully, this literature review will inform present and future initiatives in colleges of education in partnership with schools and school districts so that research is further defined to embrace action research framed, taught, and supported by university teacher education graduate programs.

### Disclosure statement

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### References

- Ainscow, M. 2008. "Teaching for Diversity: The Next Big Challenge." In *The Sage Handbook of Curriculum and Instruction*, edited by F. Michael Connelly, (Assoc. Eds.) M. F. He and J. Phillion, 240–258. Los Angeles, CA: Sage.
- Akom, A. A. 2009. "Critical Hip Hop Pedagogy as a Form of Liberatory Praxis." *Equity and Excellence in Education* 42 (1): 52–66.
- Amrein-Beardsley, A., D. Zambo, D. W. Moore, R. R. Buss, N. J. Perry, S. R. Painter, D. L. Carlson, T. S. Foulger, K. Olson, and K. S. Puckett. 2012. "Graduates Respond to an Innovative Educational Doctorate Program." *Journal of Research on Leadership Education* 7 (1): 98–122.
- Anderson, G. L., K. G. Herr, and A. S. Nihlen. 2007. *Studying Your Own School: An Educator's Guide to Practitioner Action Research*. Thousand Oaks, CA: Sage.
- Ball, D. L., and F. M. Forzani. 2007. "What Makes Educational Research 'Educational'?" *Educational Researcher* 36 (9): 529–540.
- Blasco, P. M., R. A. Falco, and L. J. Munson. 2006. "Project SELF: Preparing Professionals to Facilitate Self-determination." *Journal of Early Intervention* 29 (1): 63–79.
- Bogdan, R. C., and S. K. Biklen. 1982. *Qualitative Research for Education: An Introduction to Theory and Methods*. Boston, MA: Allyn & Bacon.
- Bond, N. 2011. "Preparing Preservice Teachers to Become Teacher Leaders." *The Educational Forum* 75 (4): 280–297. doi:10.1080/00131725.2011.602578.
- Bond, N., and A. Hargreaves, eds. 2014. *The Power of Teacher Leaders: Their Roles, Influences, and Impact*. New York: Routledge.
- Bracey, G. W. 2009. "Some Thoughts as 'Research' Turns 25." *Phi Delta Kappan* 90 (7): 530–531.
- Burnaford, G. 2011. "Experienced Educators and Practitioner Research: The Challenge for University Graduate Programs." In *Practitioner Research in Teacher Education: Theory and Best Practices*, edited by I. M. Saleh and M. S. Khine, pp. 307–324. Emirates College for Advanced Education. United Arab Emirates & Frankfurt: Peter Lang.
- Capobianco, B., R. Horowitz, and D. Canuel-Browne. 2004. "Action Research for Teachers." *Science Teacher* 71 (3): 48–53.
- Capobianco, B. M., S. Lincoln, D. Canuel-Browne, and R. Trimarchi. 2006. "Examining the Experience of Three Generations of Teacher Researchers through Collaborative Science Teacher Inquiry." *Teacher Education Quarterly* 33 (3): 61–78.
- Carboni, L. W., S. R. Wynn, and C. M. McGuire. 2007. "Action Research with Undergraduate Preservice Teachers: Emerging/Merging Voices." *Action in Teacher Education* 29 (3): 50–59.
- Chant, R. H. 2009. "Developing Involved and Active Citizens: The Role of Personal Practical Theories and Action Research in a Standards-based Social Studies Classroom." *Teacher Education Quarterly* 36 (1): 181–190.
- Christenson, M., R. Slutsky, S. Bendau, J. Covert, J. Dyer, G. Risko, and M. Johnston. 2002. "The Rocky Road of Teachers Becoming Action Researchers." *Teaching and Teacher Education* 18 (3): 259–272.
- Clemson-Ingram, R., and R. Fessler. 1997. "Innovative Programs in Teacher Leadership." *Action in Teacher Education* 19 (3): 95–106.
- Cochran-Smith, M., and S. L. Lytle. 1999. "The Teacher Research Movement: A Decade Later." *Educational Researcher* 28 (7): 15–25.

- Cochran-Smith, M., and S. L. Lytle. 2009. *Inquiry as Stance: Practitioner Research for the Next Generation*. New York, NY: Teachers College Press.
- Cooper, C. W. 2006. "Refining Social Justice Commitments through Collaborative Inquiry: Key Rewards and Challenges for Teacher Educators." *Teacher Education Quarterly* 33 (3): 115–132.
- Crocco, M. S., B. Faithfull, and S. Schwartz. 2003. "Inquiring Minds Want to Know: Action Research at a New York City Professional Development School." *Journal of Teacher Education* 54 (1): 19–30.
- Crookes, G., and P. M. Chandler. 2001. "Introducing Action Research into the Education of Postsecondary Foreign Language Teachers." *Foreign Language Annals* 34 (2): 131–140.
- Dana, N. F., and D. Yendol-Hoppey. 2014. *The Reflective Educator's Guide to Classroom Research*. Thousand Oaks, CA: Corwin Press.
- Denzin, N. K., and Y. S. Lincoln, eds. 1998. *The Landscape of Qualitative Research: Theories and Issues*. Thousand Oaks, CA: Sage.
- Du, F. 2007. "A Case Study of Teacher Leaders as Group Leaders: Implications for Research and Teacher Education." *The Teacher Educator* 42 (3): 185–208.
- Esposito, J., and S. Smith. 2006. "From Reluctant Teacher to Empowered Teacher-researcher: One Educator's Journey toward Action Research." *Teacher Education Quarterly* 33 (3): 45–60.
- Evans, M., P. Lomax, and H. Morgan. 2000. "Closing the Circle: Action Research Partnerships towards Better Learning and Teaching in Schools." *Cambridge Journal of Education* 30 (3): 405–419.
- Frankel, J. R., N. E. Wallen, and H. H. Hyun. 2015. *How to Design and Evaluate Research in Education*. 9th ed. New York: McGraw Hill.
- de Freitas, E. 2008. "Troubling Teacher Identity: Preparing Mathematics Teachers to Teach for Diversity." *Teaching Education* 19 (1): 43–55.
- Fullan, M. 2010. *All Systems Go: The Change Imperative for Whole System Reform*. Thousand Oaks, CA: Sage.
- Gerlach, G. J. 2000. "Collaborative Action Research as a Graduate Course Project." *Contemporary Education* 71 (2): 30–32.
- Groenke, S. L. 2010. "Seeing, Inquiring, Witnessing: Using the Equity Audit in Practitioner Inquiry to Rethink Inequity in Public Schools." *English Education* 43 (1): 83–96.
- Grogan, M., J. Donaldson, and J. Simmons. 2007. *Disrupting the Status Quo: The Action Research Dissertation as a Transformative Strategy*. [http://cnx.org/contents/3b9dc68e-43d9-4fda-a1e9-3452641fe75e@2/Disrupting\\_the\\_Status\\_Quo:\\_The](http://cnx.org/contents/3b9dc68e-43d9-4fda-a1e9-3452641fe75e@2/Disrupting_the_Status_Quo:_The)
- Guthrie, J. W. 2009. "The Case for a Modern Doctor of Education Degree (Ed.D.): Multipurpose Education Doctorates No Longer Appropriate." *Peabody Journal of Education* 84: 3–8.
- Herr, K. G., and G. L. Anderson. 2005. *The Action Research Dissertation: A Guide for Students and Faculty*. Thousand Oaks, CA: Sage.
- Herr, K. G., and G. L. Anderson. 2014. *The Action Research Dissertation: A Guide for Students and Faculty*. 2nd ed. Thousand Oaks, CA: Sage.
- Hine, G. S. C. 2013. "The Importance of Action Research in Teacher Education." *Issues in Educational Research* 23 (2): 151–163.
- Hollingsworth, S. 1995. "Teachers as Researchers." In *International Encyclopedia of Teaching and Teacher Education*, 2nd ed., edited by L. W. Anderson, 16–19. Kidlington, Oxford: Elsevier Science.
- Honigsfeld, A., M. Connolly, and K. Shannon. 2013. "Demystifying Teacher Action Research: Lessons Learned from a Graduate Education Capstone Experience." *Delta Kappan Gamma Bulletin* 79 (2): 15–21.
- Johnson, M. J., and K. Button. 2000. "Connecting Graduate Education in Language Arts with Teaching Contexts: The Power of Action Research." *English Education* 32 (2): 107–126.
- Katzenmeyer, M., and G. Moller. 2001. *Awakening the Sleeping Giant: Helping Teachers Develop as Leaders*. 2nd ed. Thousand Oaks, CA: Corwin.
- Kemmis, S. 2008. "Critical Theory and Participatory Action Research." In *The SAGE Handbook of Action Research*, edited by P. Reason and H. Bradbury, 121–138. Los Angeles, CA: Sage.

- Kincheloe, J. L. 2003. *Teachers as Researchers: Qualitative Inquiry as a Path to Empowerment*. 2nd ed. London: Routledge Falmer.
- Lebak, K., and R. Tinsley. 2010. "Can Inquiry and Reflection Be Contagious? Science Teachers, Students, and Action Research." *Journal of Science Teacher Education* 21 (8): 953–970.
- Levin, M. 2008. "The Praxis of Educating Action Researchers." In *The Sage Handbook of Action Research: Participative Inquiry and Practice*, edited by P. Reason and H. Bradbury, 669–681. Los Angeles, CA: Sage.
- Levin, B. B., and S. P. Merritt. 2006. "Action Research for Teacher Empowerment and Transformation." *Teacher Education Quarterly* 33 (3): 3–6.
- Lewis, A. 2009. "Researching What Really Works in Education." *Phi Delta Kappan* 90 (8): 539–540.
- Lieberman, A., and L. Miller. 2004. *Teacher Leadership*. San Francisco, CA: Jossey-Bass.
- Loughland, T., and M. Bowen. 2012. "Action Research Built on Uncertain Foundations: The Internship and Action-research in a Graduate Teaching Degree." *McGill Journal of Education* 47 (3): 345–358.
- Lustick, D. 2009. "The Failure of Inquiry: Preparing Science Teachers with an Authentic Investigation." *Journal of Science Teacher Education* 20 (6): 583–604.
- McIntyre, A. 2003. "Participatory Action Research and Urban Education: Reshaping the Teacher Preparation Process." *Equity and Excellence in Education* 36 (1): 28–39.
- Noffke, S., and B. Somekh, eds. 2009. *The Sage Handbook of Educational Action Research*. Los Angeles, CA: Sage.
- Osterman, K., G. Furman, and K. Sernak. 2014. "Action Research in Ed.D. Programs in Educational Leadership." *Journal of Research in Leadership Education* 9 (1): 85–105.
- Price, J. 2001. "Action Research, Pedagogy and Change: The Transformative Potential of Action Research in Pre-service Teacher Education." *Journal of Curriculum Studies* 33 (1): 43–74.
- Price, J. N., and L. Valli. 2005. "Preservice Teachers Becoming Agents of Change: Pedagogical Implications for Action Research." *Journal of Teacher Education* 56 (1): 57–72.
- Pritchard, I. A. 2002. "Travelers and Trolls: Practitioner Research and Institutional Review Boards." *Educational Researcher* 31 (3): 3–13.
- Reason, P., and H. Bradbury. 2001. *Handbook of Action Research: Participative Inquiry and Practice*. Los Angeles, CA: Sage.
- Reason, P., and H. Bradbury, eds. 2008. *The Sage Handbook of Action Research: Participative Inquiry and Practice*. 2nd ed. Los Angeles, CA: Sage.
- Reason, P., and J. Marshall. 2001. "On Working with Graduate Research Students." In *Handbook of Action Research: Participative Inquiry and Practice*, edited by P. Reason and H. Bradbury, 413–419. Thousand Oaks, CA: Sage.
- Rogers, D., C. M. Bolick, A. Anderson, E. Gordon, M. M. Manfra, and J. Yow. 2007. "'It's about the Kids': Transforming Teacher-student Relationships through Action Research." *The Clearing House* 80 (5): 217–222.
- Saleh, I. M., and M. S. Khine, eds. 2011. *Practitioner Research in Teacher Education: Theory and Best Practices. Emirates College for Advanced Education: United Arab Emirates*. Frankfurt: Peter Lang.
- Sax, C., and D. Fisher. 2001. "Using Qualitative Action Research to Effect Change: Implications for Professional Education." *Teacher Education Quarterly* 28 (2): 71–80.
- Sela, O., and M. Harel. 2012. "The Role of Teacher Education in Introducing Action Research into the Education System: A Case Study of an Education College." *Current Issues in Education* 15 (2): 1–12.
- Shosh, J. M., and C. R. Zales. 2007. "Graduate Teacher Education as Inquiry: A Case Study." *Teaching Education* 18 (3): 257–275.
- Shulman, L. S., C. M. Golde, Bueschel A. Conklin, and K. J. Garabedian. 2006. "Reclaiming Education's Doctorates: A Critique and a Proposal." *Educational Researcher* 35 (3): 25–32.
- Storms, S. B. 2013. "Preparing Teachers for Social Justice Advocacy." *Multicultural Education* 20 (2): 33–39.
- Taylor, S. S., J. W. Rudolph, and E. G. Foldy. 2008. "Teaching Reflective Practice in the Action Science/Action Inquiry Tradition: Key Stages, Concepts and Practices." In *The*



- Sage Handbook of Action Research: Participative Inquiry and Practice*, edited by P. Reason and H. Bradbury, 656–668. Los Angeles, CA: Sage.
- Turner, S. 2010. “Teaching Research to Teachers: A Self-study of Course Design, Student Outcomes, and Instructor Learning.” *Journal of the Scholarship of Teaching and Learning* 10 (2): 60–77.
- Valli, L., E. H. Van Zee, P. Rennert-Ariev, J. Mikeska, S. Catlett-Muhammad, and P. Roy. 2006. “Initiating and Sustaining a Culture of Inquiry in a Teacher Leadership Program.” *Teacher Education Quarterly* 33 (3): 97–114.
- Warren, S., D. Doorn, and J. Green. 2008. “Changes in Vision: Teachers Engaging in Action Research.” *The Educational Forum* 72 (3): 260–270.
- Wells, G. 2009. “Dialogic Inquiry as Collaborative Action Research.” In *The SAGE Handbook of Educational Action Research*, edited by S. Noffke and B. Somekh, 50–61. Los Angeles, CA: Sage.
- Winicki, B. A. 2006. “Reading Teachers and Research: From Consumers to Evaluators to Producers.” *Journal of Reading Education* 31 (2): 21–28.
- Zeichner, K. 2001. “Educational Action Research.” In *Handbook of Action Research: Participative Inquiry and Practice*, edited by P. Reason and H. Bradbury, 273–283. Thousand Oaks, CA: Sage.
- Zeichner, K. M., and S. E. Noffke. 2001. “Practitioner Research.” In *Handbook of Research on Teaching*, 4th ed. edited by V. Richardson, 298–330. Washington, DC: American Educational Research Association.
- Zuber-Skerritt, O., and M. Fletcher 2007. “The Quality of an Action Research Thesis in the Social Sciences.” *Quality Assurance in Education* 15 (4): 413–436. doi: <http://dx.doi.org.ezproxy.fau.edu/10.1108/09684880710829983>.