Examples of action research studies published in journals

In this chapter, we want to present some action research studies whose authors have "gone public" by writing up their work for publication in a journal. In Chapter 8, we suggested that before you start writing you need to decide on the possible audiences you are writing for and the criteria you might use in planning your writing. The studies we want to share with you in this chapter are intended to help you make these decisions by providing examples that may suggest ideas to you. Since 1993, the international journal Educational Action Research (EAR) has published articles by action researchers in education and across other professions, particularly in the fields of health, social work, and community development (http:// www.tandfonline.com/loi/reac20). Since then, the number of potential outlets for reports of action research has grown. While in the previous edition of this book half of the examples came from EAR, only two are from it in this edition. Two are from chapters in edited books, two are from other journals—Studying Teacher Education (http://www.tandfonline.com/loi/cste20) and Equity and Excellence in Education (http://www. tandfonline.com/loi/ueee20). The two remaining examples come from the annual conference of the Action Research Network of the Americas (http://arnawebsite.org) and from a website dedicated to publishing practitioners' accounts of their research (https://www.socialpublishersfoundation.org). In addition to the wide range of publication outlets, they also illustrate a wide range of approaches to action research used in projects in education, health, and community development carried out in five different countries—the US, the UK, Sweden, Israel, and Venezuela. We hope that by reading the summaries of these articles and our commentaries on them you will be inspired to write your own articles for publication. We hope you might also download the articles from their websites and read them in full so that you can see if you agree or disagree with our comments.

As we have shown throughout this book, and do so in this chapter through the various examples, educational action research can serve many purposes, such as developing programs to help marginalized students (Azuela, May, & Ortega, 2017; Nutti, 2016) or addressing end-of-life issues (Froggatt et al., 2014); improving one's own practice (Marx, 2004; Maxwell, 2015; Rebolledo, 2017; Senese, 2005); and professional development (Mamlok-Naaman, 2014). We look at each of these examples in the following sections: classroom practice carried out by teacher–researchers; participatory action research; self-studies; and action research for professional development.

Studies of classroom practice carried out by teacher-researchers

Although we usually use the term "teacher" to refer to someone who teaches in formal educational settings at the preK–12 levels, we acknowledge that action research is done by post-secondary instructors as well as classroom teachers. Therefore, in this section, we give an example of an action research study done by Sally Maxwell (2015), a high school English teacher; and a second done by Sherry Marx (2004), an instructor of preservice teachers at the undergraduate level.

Email as an object of critical practitioner inquiry

Sally Maxwell's action research study was of her practice as an English teacher in a highly diverse high school in the US. Most of the students were African Americans, Blacks from the Caribbean, and Latinos. The remaining 20 percent were European Americans. It was a school that was feeling the pressures of the accountability movement, and had recently been labeled as "failing" under the terms of the No Child Left Behind Act (US Department of Education, 2001). In her study, Maxwell examined her use of email as a way to communicate with the students in her 11th-grade class. In particular, she asked:

- What does email reveal about the ideological content of my communication with students?
- What role does email play in my relationships with students?
- How could I use email transformatively?

(Maxwell, 2015, p. 275)

Her article in *Educational Action Research* focuses on her interactions with two students: Adriana and Jason.

Maxwell first began to use email in the way that the administration of her school intended as an information conduit to clarify assignments, for students to submit make-up work, and for grading. As the school year progressed, she encouraged the students to email her drafts of the essays that they were writing. A few of them began to do that, and Maxwell

engaged in a long and serious conversation (Feldman, 1999) through email with Adriana for the remainder of the year. In the article, Maxwell provides examples of the types of exchanges that the two of them had about essay writing. In doing so, Adriana's ideas about essay themes as well as the technical aspects of writing became the focus, rather than the instrumental use of email envisioned by the school administration, or for discussing grades. Adriana also used email as a way to have private conversations with Maxwell about public issues in class. One that Maxwell highlighted was the common problem of unequal contributions to group projects. While Adriana at first thought of it in terms of grades, Maxwell was able to shift the conversation to her vision for engaging the students in group assignments: "the idea that education is a private good, even though the advancement of all of the group members through collaboration was my explicit purpose" (Maxwell, 2015, p. 279). As the year progressed, Maxwell and Adriana's email conversations broadened to include discussions of Adriana's college plans, and they engaged in more face-to-face chats about the class and her aspirations.

From the above it is clear that Maxwell's use of email to communicate with Adriana was successful. It was not so with Jason. Although he emailed Maxwell frequently, it did not appear to have a positive impact on their relationship or on his learning. The examples of the exchanges that she provides shows a student trying to con the teacher for grades, and the teacher trying to catch him at it "to cut through confusion and deception" (Maxwell, 2015, p. 282). Maxwell noted that "As a teacher or a researcher, I did not understand what to make of Jason. Practitioner research might not have helped me know or teach him better, but at least it helped me see my failure" (p. 283).

Maxwell used a critical framework to understand why she had such different experiences with the two students. Email began as a way to have the time and space to have reflective conversations in "a classroom besieged by management challenges and the pressures of accountability ... [to] counter the relentless pressures of efficiency and coverage that high-stakes tests bring to a classroom" (Maxwell, 2015, p. 285). Adriana was receptive to using email in this way and accepted Maxwell's invitation to do so. Jason, on the other hand, did not see email as a way to engage in reflection and instead used it as the way it was intended by the school administration. To him it was a tool to help him do what was necessary to succeed (have passing grades) given his opposition to schooling and the lack of mutual respect between him and Maxwell, and between him and the school administration. To Maxwell these differences highlighted the ways in which her teaching was being subverted by the power of the accountability movement. While her interchanges with Adriana eventually became what she wanted of them, they began with Adriana asking for feedback on her essay draft so that she could get a higher grade. For Jason,

there was no easy entry into the transformative use of email because he was not interested in doing the required work. As a result, Maxwell's invitation was insufficient to engage him in the types of conversations that she was seeking.

The article ends with Maxwell providing us with the changes that she's made in the use of email in her teaching. These include building email communication into the classes from the beginning, creating public digital spaces for students to share ideas and respond to each other's work, and using online class discussions early on in the term. She also incentivized email and face-to-face conversations with higher grades, praise, the opportunity for students to shape the curriculum, and snacks. The result is that she has email or face-to-face conversations with almost all of her students.

Maxwell's action research study could be seen as an example of technical problem solving. She wanted to use email as a way to better communicate with her students about their work, and she accomplished that with the various incentives. Where the critical lens was important, however, was in understanding the difference between the ways in which Adriana, Jason, and Maxwell herself responded to the pressures and power of the effects of the accountability movement on the students, the school, and her practice.

Exploring whiteness in teacher education

The focus of Sherry Marx's study (2004) was her teaching of a course entitled 'Second Language Acquisition' (SLA). This was a required course for preservice elementary education students at a large university in the southwestern US. The purpose of the course was to prepare them with the knowledge and skills that they would need to teach in classrooms that had large numbers of English language learners (ELLs). These ELL students were primarily of Mexican descent and were being raised in households where the first language was Spanish. In the US, elementary school teachers are primarily female and white. This was reflected in the makeup of Marx's class in which about 85 percent of the students fit these categories. As a way for these students to experience working with children whose home culture was very different from theirs, and for whom English was not their first language, they were required to tutor ELL students in local public schools for ten hours/week.

Marx began her study with questions that arose from her desire to understand the perspectives of her students better, including "their beliefs, the ways that their own racial backgrounds affected their beliefs, and how tenacious these beliefs would be if challenged" (Marx, 2004, p. 34). Because her concern was in the disjunction between the culture of the majority of her students and those of the ELL students they would eventually be teaching, Marx invited female students who considered themselves to be

both white and a monolingual speaker of English to be participants. Nine, ranging in age from 20 to 35 years, volunteered. The methods that she used included interviewing the students, reviewing their tutoring journals, and observing them tutoring. In addition, she tutored a fourth-grade ELL student at one of the local schools. After transcribing the data, she coded them into themes, using a theoretical framework that drew upon the literature of critical race theory and critical white studies. From these data and her analysis of them, she found that the students "were influenced by their whiteness and white racism, [and that] Some of these influences proved to be detrimental to the children they tutored" (p. 35).

As you can see from the description of the methods that Marx used, she was initially engaging in what we would consider a "traditional" qualitative study of her students and their experiences. However, she was struck by a dissonance between how the students thought of themselves as "open-minded," "tolerant," and without prejudice and what she found in her data about their beliefs and actions. She described this as follows:

I began to experience an ethical dilemma. I could see the good intentions of participants, but I could also see the white racism that they could not yet see. As a researcher, I was recording the ways that white racism manifested itself in the tutor—tutee relationship. As an instructor, I was sending my students to tutor each week despite the problems I observed. I realized that participants were students and that they were learning, but I also felt that they were causing harm.

(Marx, 2004, p. 37)

The problem became even more apparent when she met with two of her students together. During this conversation, the students expressed their beliefs about the children more openly and honestly than before, which led Marx to shift her study to how she could transform her teaching to address her students' racism.

Marx decided that her first step was to meet the nine participating students individually rather than as a whole group. The second was to begin to firmly but gently draw attention to when the students expressed white racism in their discussions about race. She did this by giving the students the transcripts of their interviews and asking them to examine them for evidence of racism in their words. When she met with them to discuss what they had found, the students typically noted that they were affected by white racism, but that theirs was innocuous and could be controlled. Marx felt that her role was to problematize the students' responses. Marx's next step was to provide the students with the knowledge and skills that they needed to take on an anti-racist stance.

Marx's article provides much more detail about her transformation from a teacher researching her students to being a teacher-researcher. This came about because of the ethical, moral, and political interests she had in uncovering her students' beliefs about the ELL students and helping them to acknowledge and change them. One interesting aspect of this action research study is that Marx did not write about it as such. However, we found it to be a compelling example of how what we see as being important aspects of action research can arise from a critical stance toward one's practice.

Examples of participatory action research

The two examples of action research that we look at next are examples of what is usually referred to as participatory action research (PAR). We described it briefly in Chapter 3. These examples, the first of a professor specializing in palliative care work with a group of "older people," and the second of a mathematics educator working with a group of Sami teachers in Sweden, should provide you with a better understanding of what PAR is and how it can serve community needs.

Addressing end-of-life issues with older people

The book chapter, 'Addressing end-of-life issues through peer education and action research,' was co-written by Katherine Froggatt and the eight older people¹ who engaged with her in an action research group—Gail Capstick, Oliver Coles, Deidre Jacks, Susan Lockett, Irene McGill, Jill Robinson, Janet Ross-Mills, and Mary Matthiesen (2014). Although it is not necessarily a part of PAR, one of the ways in which this example of action research demonstrates its democratic nature is by recognizing all the members of the group as co-authors in the text of the chapter. However, on the title page, Froggatt is identified as the author with the eight older people. This suggests that they did not have full status as co-authors. As with most PAR, this study began with the recognition of a need felt by a community. In this case, it was to improve the public's awareness about and attitudes toward issues related to getting older and eventually dying. Katherine Froggatt, as a professor at Lancaster University where she specializes in palliative care, was aware of the governmental National End-of-Life Care program in England. The overall goal of this program is to improve the public's knowledge so that they can make better decisions about the issues that we all face as we grow older. Froggatt was also aware of an international movement in health care and social services that encourages a shift of power from professionals to individuals and their communities, and that one way to do this is through a participatory approach. As a result, she decided to convene a group of older people who would focus on the end-of-life issues in their locality for themselves and collectively. She was able to receive funding from a local health provider organization.

Although PAR is done by those most concerned about the issues being addressed, it is often instigated by an outsider who sees the need in the community. After spending some time getting to know the community and its features, the outsider then needs to somehow convene a group of community members who would be interested in engaging in action research. Froggatt first engaged with the community through a threeday training program that was attended by nine people. Eight of them along with Froggatt became the Peer Education for End-of-Life Project group. They identified two objectives. The first was to develop a personal portfolio template that individuals would be able to use to record and store resources and information to support their decision making about end-of-life issues. The second was to design and implement endof-life workshops for older people and their advocates (Froggatt et al., 2014). They also decided to structure the group using what Froggatt et al. refer to as key principles of PAR: "working with people, rather than on them; utilizing different ways of knowing in the world" (for example, experiential and theoretical); and "bringing about a change as a result of the work" (pp. 44–45). The group met monthly for six months during which it engaged in cycles of action research that focused on the members' own practice (being an older person) and seeking ways to bring about change.

Froggatt et al. (2014) thought of their PAR in terms of two main actions. The first was the development of the participants' personal portfolios and a template that could be used by other older people. The process of developing the portfolio began with the group members hearing and understanding each other's different experiences and perspectives about end-of-life issues to identify their thoughts about what ought to be included in their portfolios. They then looked for resources that went beyond their own knowledge and experience about issues like "advance care planning, mental capacity issues, bequests and post-death activities" (p. 46). These resources were reviewed for their strengths and weaknesses, and how they would help in the development of the portfolios. This then led directly into the design of the portfolio. These three steps in the process could be thought of as being the development phase. The next steps were to try out the portfolios, reflect on their usefulness, and come up with ideas about how they could be improved. This process of trying them out, reflecting on their use both individually and in the group continued for several cycles until they felt that the portfolios were useful to them and potentially for others.

The second action was to develop and implement the public workshops on end-of-life planning for older adults. The workshops began with one of the group members telling a personal story related to aging. This was followed by small group discussions facilitated by the group members. The workshop concluded with sharing of what the small groups had

discussed with the wider group. The portfolio was further revised as a result of what the group had learned from the workshop participants.

The chapter ends with the raising of the question of what criteria can be used to evaluate the success of a PAR project, and whether the Peer Education for End-of-Life Project met those criteria. The group decided to use those proposed by Reason (2007):

- The extent to which worthwhile practical purposes are addressed;
- Levels of democracy and participation;
- The different forms of knowledge engaged with during the study;
- The extent to which the research has been and continues to be responsive and developmental.

(Froggatt et al., 2014, p. 50)

Froggatt et al. demonstrate that they have in fact met each of these criteria. By examining the ways the study meets them, we would like to take a look at what these criteria mean in terms of action research in general.

The Peer Education for End-of-Life Project addressed the practical problems related to the human experiences of aging and dying. The Project addressed these through the development of the portfolio and the presentations of the workshops. This is in line with what we believe ought to be the case for all action research—the reason why it is called ACTION research is because it embeds worthwhile activities as an integral part of the research and it should lead to meaningful changes in individual practice and practice situations, and be of use to other practitioners as well as university researchers and policy makers.

On almost all levels the Project was democratic in nature and participatory. The group, which included the eight older people and the university researcher, together designed and undertook the action research study, and their meetings were structured to ensure shared responsibility. The goals of shared leadership and responsibility like those described in this chapter ought to be important aspects of any collaborative action research project. That said, there are often issues related to power differentials when university researchers work with practitioners. In this case, Froggatt is a professor at a major university. We know little of the participants other than that they are older people. While the study was done collaboratively, it was Froggatt who conceived it and convened the group, and she is identified as the author of the chapter while the participants are acknowledged to be in a secondary role. While there is not anything inherently wrong with there being power differences—in fact, it is nearly impossible to eliminate them—we believe that it is important to acknowledge them and to work hard to minimize their effects (see Feldman, 1993a).

The Peer Education for End-of-Life Project also used a variety of forms of knowledge to meet its objectives. This included the experiential knowledge of all the participants, the propositional knowledge that they uncovered in their search for external resources related to their issues of concern, and the practical knowledge that they developed and shared through the development of the portfolio and workshops. In addition to these three forms of knowledge, Heron (1992) added a fourth—presentational knowledge. Froggatt et al. (2014) see this in the stories that they told as part of the workshops. Quality action research makes good use of the knowledge of those who engage in it. As practitioners, they have experiential knowledge based on who they are, practical knowledge that is part of what they do, and presentational knowledge in the storied lives that they live (Connelly & Clandinin, 1990). But action researchers ought not to limit themselves to these forms of knowledge—there is much to learn from the propositional knowledge that others have produced and made available through articles and other media.

Finally, the Project was responsive to the needs of older people and the communities in which they live. This should always be the case in action research if the research is done by practitioners (in this case, those engaged in the practice of being older people) and is initiated by their concerns. The Project was also developmental as the participants engaged in the cyclic nature of action research. Quality action research visits and re-visits the solutions and the problems, modifying both as the action researchers reflect on what they are doing, why they are doing it, and the effects of what they have done.

Decolonizing indigenous teaching

Our second example of PAR was published in the journal *Action Research*. It reports on work by Ylva Jannok Nutti, a faculty member at the Sámi University of Applied Sciences, in collaboration with Sámi teachers in Sweden. The Sámi are indigenous people living in the far north regions of Norway, Sweden, Finland, and Russia. In Sweden, there are Sámi schools that follow the national curriculum but are required to support the Sámi languages and culture. In a previous study, Nutti found that Sámi teachers wanted to implement culture-based teaching and, therefore, decided to engage the teachers in action research to help them achieve that objective. This study highlights a common goal of PAR, which is to work against the dominating effects of one culture over another. In this case, the development of a Sámi culture-based curriculum can be seen as an attempt to reduce the dominance of the Swedish culture and increase the sustainability of the indigenous one (Nutti, 2016).

Nutti decided to use Critical Utopian Action Research as a framework for this PAR study. Critical Utopian Action Research, which was developed by Nielsen and Aagaard Nielsen (2006), uses a democratic focus "to develop communication arenas in which a new understanding of the context can emerge across various perspectives, from the knowledge and experiences of experts to local knowledge and everyday-life perspectives" (Nutti, 2016, p. 3). This is achieved through the use of future workshops (Jungk & Muller, 1987). A future workshop consists of three phases: the critique phase, the utopian phase, and the realization phase. The critique phase seeks to answer the question, "What's wrong?" To initiate this Nutti posed the following question to the teachers: "When critically reviewing your local teaching practice, what challenges and opportunities do you experience in practice regarding the implementation of Sámi culture-based teaching and the obligation to take into account and develop the Sámi language and cultural heritage?" (Nutti, 2016, p. 8). The teachers responded that they felt trapped between the demands made by the national curriculum and their desire to implement Sámi culture-based teaching. This was due in part to the teachers' desire to best prepare their students for the national exams, which are a passport to further schooling. They felt that the Sámi curriculum was too time-consuming, which prevented them from doing what they felt best for their students' future. Other problems and tensions were discussed, and the outcome of the critique phase was for the teachers to identify the challenges that they faced in implementing a Sámi culture-based curriculum.

In the utopian phase, the teachers envisioned and discussed their "dream Sámi school" in the context of the subject area that is the focus of Nutti's work: mathematics. Their dream school would help pass Sámi culture-based knowledge to young people, it would include the participation and wisdom of the community elders, it would build upon students' everyday experiences as Sámis, and it would incorporate the students' voice in the development of the curriculum materials (Nutti, 2016).

The purpose of the realization phase is to turn dreams into reality. The teachers did this by seeking knowledge in addition to their professional, practical, and experiential knowledge. One source was the field of ethnomathematics, which Nutti introduced to the teachers. The existence of an academic field that recognized the mathematics of indigenous people helped legitimate for the teachers the inclusion of the use of Sámi culture in the teaching and learning of mathematics. Nutti also arranged for a workshop by researchers from the Math in a Cultural Context project (Lipka, Mohatt, & the Ciulistet Group, 1998). This project used ethnomathematics to develop curriculum materials for indigenous students in Alaska. The workshop provided the Sámi teachers with examples of how this was done, and generated ideas of how the types of activities developed for Alaska natives could be modified for their students. The teachers also sought knowledge from parents, grandparents, and elders about the Sámi culture and ways that they thought it could be incorporated into the teaching of mathematics. These varied sources enabled the teachers to build a knowledge exchange that "functioned as a social learning arena for both the pupils and the teachers" (Nutti, 2016, p. 18).

As is typical with PAR, there were outcomes for the participants and outcomes for the community that went hand-in-hand. The tension that the teachers had felt between the need to teach the national curriculum and their desire to incorporate Sámi culture-based curriculum was relieved by the development of the new curriculum materials, which also served to strengthen the community's longing to continue their cultural heritage to future generations. By seeking ways to incorporate Sámi culture in their teaching, the teachers rediscovered and recovered their traditional knowledge in the context of formal schooling. This also served the community's need by lessening the gap between the state school and them. This gap was also lessened because the teachers sought out the family members and elders as collaborators, which placed both the teachers and pupils in the role of learners.

We end our look at examples of PAR by noting some of the differences between PAR and the conception of action research as presented through much of this book. One of the most important differences is the role of the outsider researcher. In our vision of action research, there is not necessarily an outsider. Individual practitioners or groups of practitioners can engage in action research studies without an outsider to initiate it or facilitate it. In many, if not most, examples of PAR, there is an outsider who has both research and domain-specific expertise who collaborates with participants to initiate and facilitate the action research. We saw this in both examples that we presented here. In the first, Froggatt provided her expertise in research and palliative care to convene a group of older people to work on a problem that she had identified. While it was and is a problem of importance for both the older people and the communities in which they reside, the PAR would not have happened without Froggatt. Similarly, while it may have been possible for the Sámi teachers to develop the curriculum materials without Nutti, she was the one who came to the school seeking teachers who would collaborate with her in her interest in ethnomathematics as a way to support the Sámi culture, which she shares.

A second difference between PAR and our conception of action research is that it is typical in the former for the participants to be part of a community or social group that is in some way oppressed, persecuted, or repressed. We see this in both examples that we looked at here. In many Western countries, older people are seen as second-class citizens. Because many are past their prime, are no longer participating in the workforce, and often segregate themselves in retirement communities, they find themselves on the periphery of society. In addition, many have low or limited incomes because they were not able to put aside enough funds for retirement because of low wages when they were employed and/or because their governments do not adequately support retirees.

As a result, older people as a class have characteristics that are similar to those who are oppressed, persecuted, or repressed. The situation for the Sámi as indigenous people, living traditional lifestyles, speaking a language different from those of the majority, and devoid of a national state because their ancestral lands have been split among Norway, Sweden, Finland, and Russia makes it much easier to see how they can be classified among the oppressed. The connection between PAR and the types of communities that it serves helps us understand why it is so often associated with critical pedagogy (Freire, 1989; Gore, 1993) and critical action research (Carr & Kemmis, 1986; Kemmis, McTaggart, & Nixon, 2014).

Self-studies

As we noted in Chapter 3, there is a large movement in support of this in the field of teacher education that goes by the name "self-study of teacher education practices" (S-STEP) (see, for example, Loughran, Hamilton, LaBoskey, & Russell, 2004, and the journal *Studying Teacher Education*). We provide two examples of self-study—the first in an unpublished study by Geitza Rebolledo (2017)², and a second that appeared in *Studying Teacher Education*.

How do I improve what I do?

Rebolledo has been teaching a curriculum course for more than 20 years to undergraduate teacher education students at the Universidad Pedagogica Experimental Libertador Pedagogic Institute (UPEL-IPC) in Caracas, Venezuela. The course has a mix of students preparing to teach a variety of school subjects including Spanish language, biology, chemistry, sports education, computing, math, and physics. The second class session was a workshop on reflective practice. Rebolledo found that the language some students engaged in was the type of reflective writing that she expected from students in their sixth of ten semesters of studies. However, the other students were at a loss as to what she expected of them. For example, when she asked them what it means to reflect, they were not at all familiar with what she meant by that. They told her that in their courses they were typically asked to remember, to come to a conclusion, to think about what something means, to interpret or to reason about something. Missing was any experience engaging in philosophical musings or engaging in ethical questions, or the expression of feelings.

In order to provide her students with the opportunity to experience reflection, Rebolledo used a technique developed by McIntosh (2010) in which students are asked for their feelings and perceived ethical aspects in response to a series of pictures. The students first did this individually and then in a whole class discussion. Again, she found that only a few students opened themselves to talking about the feelings that the images engendered, and only two expressed critical opinions of the photographs. From this, Rebolledo concluded that the majority of her students had been taught to write using an impersonal manner, and had not had the opportunity to use interpretative qualitative approaches. However, it was clear to her that the students valued the discussions about the pictures.

As a result of paying close attention to her teaching, Rebolledo found that she needed to provide the students with multiple opportunities to engage in dialogues among themselves and with her. Although previously she had believed that her classes were "democratic and open," she now realized that her students were not perceiving it as such, and that she needed to move from being a judge to being a mentor. To do this required her to construct the conditions in her classes that would involve her and her students with one another respectfully and dialogically. This included making sure that she interacted with the students in a way that was open and democratic. However, in her self-study, she found that although she had previously believed that was what she was doing, the students did not perceive her actions as open and democratic. Therefore, she found that she needed to listen more closely to her students by encouraging them to reflect critically about the course. In order for them to do this, she needed both to teach them how to reflect in this way and to develop a classroom climate of trust so that their reflections would be honest.

Studying the self as teacher and learner

Much of what is published under the rubric as self-study is concerned with the study of the practice of teacher education by teacher educators. One of the first self-studies published in the journal *Studying Teacher* Education was done by a high school English teacher in the US (Senese, 2005). Joseph Senese had been involved in action research for a number of years when he began to engage in self-study. As such, he had been paying close attention to his teaching in order to improve it and to come to a better understanding of it. This article describes what he learned from reviewing five years of grade 12 students' reflections on the classes that they took with him.

Senese saw himself as a constructivist teacher. He explained what this meant, describing his teaching practice as "no quizzes or tests, no grades, conferences with the teacher, publication of all work" (Senese, 2005, p. 46) and his goal for his students to learn to become independent and self-directed learners. He even had the students co-design a course in British literature that they were taking with him. In the article, Senese describes this process and provides details of the other classes that he taught during those five years. As part of his constructivist approach, he asked the students to provide him with their thoughts and reflections about their learning and class, but not his teaching, four times a year. He realized that these reflections provided him with the opportunity to look longitudinally at his teaching to answer the question, "What do quarterly self-reflections of the students tell me about what they are learning in English Class?" (p. 44), including any unintended outcomes, what had not been learned, and what assumptions the students had about learning and teaching in school.

Senese's method of data analysis was quite straightforward—he read and re-read the hundreds of student reflections. He immersed himself in them by reading through them in chronological order, taking notes as he read. From this, he uncovered several themes. One that Senese discovered was the significance of a sense of community among his students. He found in their reflections that they saw themselves as a group or a team, and that many commented on having both an identity connected to the class and a feeling of responsibility to the class. He found that one of the reasons for this was an assignment that one of the other teachers created that he agreed to use with his classes. While he had often met with students individually about their writing for the course, this assignment was centered on the personal essays that they were writing for their college applications. Senese found that in order to help them with these he had to get to know them better. He found that this helped to engender a relationship with every student: "I got to know them as individuals and expressed genuine interest in who they were. They, in turn, could see me as someone who needed to learn about them" (Senese, 2005, p. 50). Related to this is another theme—students learned more deeply with realistic learning experiences. For the most part, these experiences consisted of choosing for themselves what to read for the course. But to do this, they engaged in conversations with their peers as well as others in their wider community, including other teachers, their parents, their siblings, and librarians. This resulted in the students taking more responsibility for their own learning and at times for their classmates.

Both of the themes above were what he learned about the students in terms of the dynamics of the class and their ownership of their learning. However, as a self-study, Senese also asked about his role as a teacher. In the article, he recounts a story of an exchange with one of his students, Susie, at the end of the term. Susie told him that she had not learned much in the class. Senese reminded her of all that she had accomplished in her study of *The Taming of the Shrew*, including reading it, listening to a recording of it, watching a film of it, and performing a reader's theater of it with her father. Susie's response was that none of this had been assigned to her by Senese, and that no one else in the class had to do them either. When this first happened, Senese felt that Susie just didn't get what it means to

be a self-directed learner. But as a result of his going to the students' comments five years later, he came to realize that she considered him as the authority in the class and that he had not done his job as a teacher: "Reading these comments three years later alerted me to the fact that, as much as I convinced myself that I had liberated these students, I still was exercising control because of my position of authority" (Senese, 2005, p. 49).

Senese labeled the fourth theme as "Acting as both a learner and a teacher" (Senese, 2005, p. 51). However, in reading that section of his article, it appears that a more apt section title would be "Relinquish control in order to gain influence" (Senese, 2002). In his 2002 book chapter, he meant that teachers need to reduce and limit the ways that they control their students in order to motivate and inspire them. As a result of this self-study, he realized that he needed to relinquish control not only to influence the students, but also to gain understanding of his students and his teaching. He put this quite eloquently:

I am finally realizing that in order to create the kinds of relationships that foster true, authentic, and real learning, teachers must relinquish control of themselves. The position of "teacher" does not automatically make someone a teacher. By assuming some of the risk in the classroom as a true learner, I ultimately liberated students in order that they might see themselves as both teachers and learners while simultaneously liberating myself to become a learner.

(Senese, 2005, p. 52)

Action research for professional development

Action research with chemistry teachers

Israeli educators have worked for a number of years to engage science teachers in continuous professional development (see, for example, Eylon, Berger, & Bagno, 2008; Taitelbaum, Mamlok-Naaman, Carmeli, & Hofstein, 2008). One way that they have done this is by engaging teachers in action research. Rachel Mamlok-Naaman (2014) has reported on the work that she has done engaging high school chemistry teachers in action research on their practice. The decision to use action research for this purpose was based on the following assumptions:

- Teachers are highly qualified individuals with expertise and experiences that are central to the improvement of educational practice.
- By formulating their own questions and by collecting and analyzing data to answer these questions, teachers grow professionally.
- Teachers are motivated to use more effective practices when they are continuously investigating the results of their action in the classroom. (Loucks-Horsley, Hewson, Love, & Stiles, 1998, p. 97)

Given this, Mamlok-Naaman saw action research as a way to enhance the teachers' expertise by having them begin by choosing a research topic for a small study in their school setting, and by creating a professional community of chemistry teachers in the country. In addition, action research was seen as a way to develop a cadre of lead teachers who would go back to their schools and carry out action research with their colleagues. The 22 teachers were introduced to action research and its methods in a series of workshops facilitated by Mamlok-Naaman, a science education researcher at the Weizmann Institute. Teachers selected topics such as how their students understood chemistry concepts, ways to improve student behavior or motivation, and how to improve their own teaching.

In her chapter, Mamlok-Naaman presents examples from the work of two teachers, Sarah and Debra, who asked this research question: "What misconceptions do students have about electrical conductivity of metals and ionic materials, and how can we cope with them?" They decided to address this question because they were "appalled by what they felt was an apparent lack of knowledge and understanding of subjects that the students had already studied [in previous years]" (p. 182). As part of the workshops Sarah and Debra employed the traditional model of action research: identifying a problem, planning, collecting and analyzing data, implementing new method, collecting and analyzing more data, and evaluating and reflecting.

Sarah and Debra began by interviewing nine students, three each of low, intermediate, and high achievers, about their content knowledge. By analyzing the interviews, the teachers identified which concepts the students had difficulty understanding and used that to take a new approach in their teaching. This included the use of models, videos, and educational software, including computer animations. After implementing these changes, they collected data of their effects through a content post-test and follow-up interviews of the same students. Sarah and Debra found that the students gained content knowledge about electrochemistry and developed the ability to use models for reasoning. They also found that some students had not changed their misconceptions, and therefore Sarah decided to engage in another cycle of action research.

It should be clear from the summary above of Sarah's and Debra's action research studies that they had improved their practice. However, Mamlok-Naaman was interested in knowing what the effect of engaging in action research was on the other 20 teachers and its usefulness as a form of continuing professional development. Although she does not present it in this way, in effect she was engaging in second-order action research, that is, action research on action research (Elliott, 1988). She identified a problem of practice—how best to engage teachers in continuous professional development (CPD); engaged in planning and researching the issue; implemented the action research workshops; and collected data to determine CPD's effectiveness and ways to improve her practice as a facilitator

of action research. Her data included an attitudinal survey, follow-up interviews of the teachers, and the teachers' action research reports. The most immediate outcome was that the teachers improved their practice by becoming better at understanding their students and how they think. In addition, she found that the teachers learned how to engage in reflective practice through action research and to make appropriate changes. She also found that they developed a professional community that extended past the end of the workshops in which the teachers exchanged information with one another. Finally, by engaging in action research, some of the teachers had developed the skills and knowledge that would allow them to be lead teachers who could facilitate their colleagues' action research and develop their professional abilities and research interests.

Transition from high school to community college

Our final example comes from an innovative platform for making action research public: Social Publishers Foundation (https://www.socialpublishers foundation.org). Social Publishers Foundation has as its mission "to provide educational activities and funding opportunities for practitioner-research and action research projects for improved social welfare and educational practices within communities around the world" (Social Publishers Foundation, 2017). It is establishing a global non-profit network of practitioner researchers who are committed to improving the conditions of people through work in education, health care, youth and family service, and community development. The Foundation also provides small grants for practitioner research and aids in developing funding through crowd-sourcing.

Daniela Azuela, Becky May, and Rina Ortega are school counselors and English Language Development Specialists at a high school in Fremont, California (Azuela et al., 2017). Many of the students whom they work with are ELLs and/or immigrants to the US. Because of the students' marginalized status in the schools, they are not prepared to go directly from secondary school to bachelor's degree-granting institutions such as the various University of California or California State University campuses. Instead, they begin higher education in community colleges. In the US, community colleges are two-year public institutions that provide certificates, career training, and the equivalent of the first two years of a bachelor's degree. The latter track typically results in the granting of an associate degree. Many community colleges have articulation agreements with state-supported universities that allow students guaranteed admission to the bachelor's degree program, with the expectation that they would be able to complete that degree in two or three additional years. Most community colleges have open-admission policies for anyone who has a high school diploma. In addition, community college

tuition is usually significantly lower in cost than that of the bachelor's degree-granting institutions. Therefore, community colleges are a common route into higher education for students who have not done well enough to be admitted directly to university, or do not have the funds to pay for the higher costs.

Even though community college is a more accessible route to higher education than university, many students have difficulty completing the associate degree. This is especially the case for ELL students. Therefore, Azuela, May, and Ortega decided to "examine how many ELLs who are also Latina/o are not [university] eligible and whether they could benefit from an increased awareness of college preparedness by participating in a transitional program focused on community college" (Azuela et al., 2017). They gathered data to examine the barriers that the ELL students faced and developed a support system based on the problem areas that they identified. They did this through guidance lessons, information and practice for filling out online applications to the community colleges, and group discussions about the community college experience.

During the 2016–2017 academic year the team worked with 15 ELL Latina/o seniors at their high school, including two who were not eligible to graduate that year. Five were males and ten were females, all ages 17–18 years. None of them was eligible to attend four-year universities based on their transcripts. Overall, the effects of the team's intervention were very positive.

At the beginning of the program, four seniors planned on taking a year off after high school including one senior who decided to take a year off because he did not qualify for financial aid. By the end of the program, 100% of students had established an educational goal, that is, obtaining a certificate, associate's degree and/or transfer to a four-year university.

(Azuela et al., 2017)

We included this example in our book because it shows how a small group of practitioners can collaborate to produce significant changes in the lives of their students. It began by Azuela identifying a problem that went beyond her immediate job description (teaching English to ELLs) and her finding like-minded colleagues who were willing to go beyond the ordinary. They were helped by a small grant that they received from Social Publishers Foundation, but most likely they would have been able to do this without the additional funding. We also included it because it demonstrates the importance of making action research public. Azuela, May, and Ortega's report is now available to the whole world through the Social Publishers Foundation's website and can be found by searching for "transition from high school to community college."

Coda

In music, the coda is an occasional additional musical reflection that comes at the end in order to remind listeners of key themes raised in the main body of the work. Here we want to encourage you to reflect back on this chapter rather as you might at the end of a musical performance. We have not so much been presenting our own ideas in this chapter as giving performances of works composed by others. Different performers would be likely to give very different performances of the same works—and possibly give them much fairer and more interesting renderings. We encourage you to find the time to read the original articles so that you can judge that for yourselves. But, reflecting back on the articles as we have presented them, with all the inadequacies of our presentation, we hope you will sit for a moment and reflect back on the enormous range of kinds of action research and locations for action research revealed in just eight articles. All start from a vision of transforming social practices through grounding change and development in locally generated knowledge. The researchers either are participants in the social situation under investigation or work alongside the participants as co-researchers: the aim is for equality of esteem and mutual support among all those involved, whatever their role or responsibilities. They are concerned with developing practical theories that can be fed back and tested in practice, and to varying extents they set out to understand and address issues of power, politics, and ideology. Their orientation is toward deepening understanding of problems, developing a vision of what is possible, and taking action to improve the quality of professional practice. Action research is indeed a powerful approach to research capable of adapting to the needs of a very wide range of situations and projects. In the next chapter, we present some key theories that inform our understanding of action research methodology, but this chapter is a reminder that action research should never be reduced to a narrow orthodoxy. What is important is that you approach the writing of other action researchers with an open mind to learn from their experience and the knowledge they have generated about learning and change. This is the first step in going on to writing with confidence about your own action research as a contribution to public knowledge about the complexities of practice.

Notes

- 1 The term "older people" is used in the UK to refer to those over 50 years of age.
- 2 For a published account of part of this study see Rebolledo, Requena, and Menlendez (2014).

Behind the scenes

A theoretical foundation of action research

Much of what has come before here in this book has been methods and techniques for doing action research. We provided a brief introduction to this methodology in Chapter 1, and added some background and theoretical asides in the other chapters. Now that we are nearing the end of the book, we invite you to join us as we delve deeper into the origins of action research and how it has evolved over the past 100 years.

The roots of action research

Recently, Allan wrote a chapter for *The Palgrave International Handbook of Action Research* that was titled, 'An Emergent History of Educational Action Research in the English-Speaking World' (Feldman, 2017). He gave it that title because what we think of as the history of action research changes along with our understanding of it and, because as an Anglophone, he was limited to literature written in English. Many of the changes made to this section of Chapter 10 for the third edition draw on the work that Allan did in writing the chapter in the *Handbook*.

The "standard" story

It has become the standard story that action research began with the work of Kurt Lewin in the 1930s and 1940s in the US. Lewin was a Jewish refugee from Nazi Germany who had worked with members of the Frankfurt School (Jay, 1973). In the US, he found work with the Iowa Child Welfare Station (Noffke, 1990), the Commission on Community Interrelations (Marrow, 1964), and the National Training Laboratory (Marrow, 1967). Lewin described his work with these organizations as democratic forces for change, and in terms of group dynamics.

Lewin's first published use of the term action research was in his article 'Action Research and Minority Problems' (1946). His conception of action research began with the taking of actions, collecting data about the effects of those actions, and then evaluating them (Noffke, 1990). He described this as a cyclical process, as illustrated in Figure 10.1.