Teacher as Researcher: An Essential Component of Teacher Preparation

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Abstract

This article provides a brief synthesis of research findings from studies of teacher education programs that include attention to teacher research. It then details findings from a study of beginning teachers who learned about and conducted teacher research in their preservice M.A.T. program. Surveys and follow-up interviews show that these beginning teachers (2-6 years in the field) utilize a variety of research strategies, and the data from their classroom inquiry informs and sustains their work. Teacher research is more than just a requirement of their teacher preparation program; it is an essential habit of their classroom practice.

Teacher quality is a hot topic for politicians, parents, students, educators, and community members. The relationship between teacher quality and teacher preparation is under scrutiny. What do teachers need to know? What is the best way to support this knowledge development? How do we ensure that teachers are prepared to educate 21st century learners? In the midst of conversations about multiple routes into teaching, school-based residency programs, and greater attention to clinical practice, one curriculum trend is receiving attention: teachers as researchers. The assumption is that "teachers need to gather, interpret, and use data about students' learning and other aspects of teaching, learning, and schooling to continually rethink and improve their teaching practice." This focus on teacher research is not new to teacher education. A number of education researchers have written about the need for teacher research as part of beginning teacher preparation programs (Graham & Hudson-Ross, 1999; Kosnick, 2000; Monroe, Gali, Swope, & Perreira, 2007; Moore, 1999b; Ostorga & Lopez, 2009).

This research recognizes that teacher researchers are uniquely positioned to provide an insider's view that "makes visible the way that students and teachers together construct knowledge and curriculum" (Cochran-Smith & Lytle, 1993, p. 43). John Dewey (1929) noted the value of teacher research, "It seems to me that the contributions that might come from classroom teachers are a comparatively neglected field; or to change the metaphor, an almost unworked mine…." (p. 17). Teacher research supports "a different theory of knowledge for teaching—one in which teachers are among those who are knowers" (Cochran-Smith & Lytle, 1993, p. 61). Several features define or explain teacher research:

> (a) teacher researchers have an insider, or emic perspective; (b) they mix theory and practice (praxis) while teaching and researching within their classroom worlds; (c) teacher research is pragmatic and goal-oriented—there are practical classroom problems that need to be solved; and (d) teacher research involves disciplined inquiry (Shulman, 1997) which means that studies are intentional and systematically conducted (Baumann & Duffy, 2001, p. 611).

My synthesis of studies that examine teacher preparation programs that include attention to teacher research finds that graduates of these programs:

• Acquired a variety of knowledge about teaching and curriculum (Baumann & Duffy,

2001; Kosnick, 2000; McEwan, Field, Kawamoto & Among, 1997; Moore, 1999a; Rock & Levin, 2002).

• Explored their sense of self as teacher (Rock & Levin, 2002).

• Gained awareness of their students, including knowledge of their students' perspectives and learning needs (Duffield & Townsend, 1999; Kosnick, 2000; Moore, 1999a; Rock & Levin, 2002).

• Clarified their personal theories of teaching (Baumann & Duffy, 2001; Monroe, Gali, Swope & Perreira, 2007; Moore, 1999a; Ostorga & Lopez, 2009; Rock & Levin, 2002).

• Gained awareness of and appreciation for the processes of inquiry, reflection, action, and change as roles of a professional teacher (Kosnick, 2000; McEwan et. al, 1997; Monroe, Gali, Swope & Perreira, 2007; Ostorga & Lopez, 2009; Moore, 1999a; Rock & Levin, 2002).

Despite these findings, teacher research has not been a standard curriculum component of most teacher preparation programs. But with the increased emphasis on teacher preparation, there is growing interest in teachers conducting their own classroom research. "Teachers as Researchers" was noted as a new direction for teacher preparation in *Educational Leadership* (Cochran-Smith & Power, 2010, p. 11). Several examples were noted, including the University of New Hampshire's preparation program, "in which teacher candidates complete a yearlong internship in a school, generating questions, gathering student learning data, and modifying curriculum and instruction on the basis of this data" (p. 11).

For the past ten years, my work as a teacher educator has focused on preparing beginning teachers to be researchers in their own classrooms. Preservice teacher candidates in our Middle School/ High School M.A.T. program are introduced to teacher research through a number of activities that span several courses. Specifically, M.A.T. candidates explore literacy through the lens of teacher research by taking field notes at their internship sites, spending a day shadowing a student, and then selecting one student to focus on for a literacy case study. Case studies are presented to preservice colleagues at a roundtable session in late fall. Candidates also read examples of teacher research in the Language Arts methods course. During the fall of their yearlong internship, candidates develop data collection skills. Candidates build on this effort in the spring by collecting data on one class they are teaching as part of their continued internship. Candidates collect data about student learning based on classroom observations, their own reflections on lesson plans and classroom practice, and student work, including formative and summative assessments. Attention is paid to noting patterns they observe and using these patterns to inform their planning and to develop assessments to check students' understanding. Candidates then write up their findings, including the data, their analysis, and their findings regarding student learning as well as a reflection on what candidates learned about their own teaching. A second cycle of data collection, analysis, and a write up of findings follows. In addition to their own research, candidates see teacher research modeled by professors, and graduates of the program present the research they are doing as beginning teachers.

As noted above, although there are studies of teacher research as part of teacher preparation, they are limited. And there are even fewer studies that follow graduates into the field to see if they continue to conduct teacher research in support of their classroom practice. Kosnick (2000) found that teachers who were introduced to teacher research as part of their preservice teacher education continue to be teacher researchers in their first year of teaching. Gilbert and Smith (2003) studied a graduate teacher-induction program, which involved novice and practicing teachers in teacher research. They found that three years out of the program, four

former novices, out of 15, were doing teacher research as a response to classroom dilemmas. These studies of teacher researchers beyond their preparation program are promising but further studies are needed.

A Follow-up Study of Beginning Teacher Researchers and Teacher Research

This study was designed to explore the question: What is the impact of learning about teacher research as part of their preservice program on middle school/high school language arts teachers in their beginning years of teaching?

The design for this research was qualitative, although there were Likert scale questions in the survey (described below). Qualitative methods were appropriate for the study given its focus on exploring participants' perspectives on their own understanding and use of qualitative research strategies as teacher researchers. The qualitative approach was also appropriate given that the majority of the literature on teacher research utilizes qualitative research methods. A qualitative approach also emphasized my researcher's role as an "active learner who can tell the story from the participant's point of view rather than an 'expert' who passes judgment on participants" (Creswell, 1998, p. 18).

The data collection methods for this study were the following: a survey (with Likert scale and open-ended questions), interviews, and examples of participants' teacher research (artifacts). Tracking down graduates to conduct this follow-up study proved challenging. But I was able to locate 47 graduates with 2-6 years of teaching experience and send them a teacher research survey. From this group, 29 returned the survey. I then selected 8 survey participants who had indicated their willingness to do follow-up interviews. I looked for gender balance and interviewees who worked in a variety of school districts: suburban, urban, rural, and one small private school. I also wanted a mix of middle school and high school interviewees.

Data was analyzed based on interpretative and collaborative approaches. Likert scale questions were tallied, and open-ended questions were read, analyzed, and coded. These codes were then checked during interviews with participants and examples of their teacher research artifacts were examined to describe and explain how teachers used teacher research data to construct knowledge that informed their practice. I took notes during the interviews and I also transcribed the audio from interviews. Data were also examined to determine attitudes and understanding regarding teacher research and research strategies. These data collection and analysis methods provided a detailed, complex, holistic picture of whether, how, and why teachers are using teacher research in their classroom practice.

I recognize concerns about subjectivity I am a teacher researcher, and I was researching work I did with candidates in support of teacher research as well as the work of my colleagues. I know the survey and interview participants. I am invested in finding out how teacher research informs teachers' efforts. "We cross borders, but we don't erase them; we take our borders with us" (Behar, 1993, p. 320). My "borders" were and are intertwined with other teachers and college faculty in this field of study, which could lead me to only find data that supports my own beliefs about the value of teacher research. Being aware of my subjectivity helped me monitor my data collection and my analysis. I was committed to looking closely so that I could see what I did not first see; I checked to see that I had not made less of something because it contradicted my own views of teacher research. I routinely asked questions of myself: "What questions have I avoided? Who have I have not seen? With whom do I have a special relationship and how does this affect my interpretation? What data have I not collected? What might I ask to provide

additional insights?" (Glesne, 1999).

Teacher Research as a Habit of Practice

All 29 participants who returned the survey indicated they conduct teacher research. Participants reported that their primary data collection methods are classroom observations, reflections/notes on lesson plans, and students' classroom work. These methods are used daily or weekly. Interviews with survey participants provided me with examples of these data collection methods. I saw descriptions of classroom interactions, which included what teachers saw and heard. Lesson plans included notes regarding changes made during the lesson as well as after the lesson reflections. Often this led to a list of what worked well/less well. And interviewees showed me the various ways they analyze student work. These include keeping a running list of strengths and areas that need further attention as they read students' work, analyzing assessments by noting which questions or concepts are most often missed, making a chart based on students' understanding of literary elements, and making copies of student work and highlighting examples to share with the students.

In addition, graduates noted the once-or twice-a-year use of student surveys and sociograms (data on social relationships in the classroom). Student interviews were also noted as a once-or twice-a-year data collection method. This contrasts with data from interviews, in which interviewees reported the importance of one-on-one conversations with students. Further questioning revealed that interviewees contrasted these conversations with students as different from an interview, which they considered more formal. A second year teacher described how she conducts interviews with her students before parent conferences and uses this data as well as the self-evaluation survey students complete to inform her understanding of each student as a learner. She then shares this data with parents. She also notes the role of informal interviews, quick check-in talks in the hallway or during class—as another data source.

The use of "informal" vs. "formal" also came up with regard to case studies. Survey participants indicated they did not conduct "formal" case studies, like the ones they did in their M.A.T. program, but 30% of survey participants reported they did "informal" case studies at least once per year. These studies consisted of being intentional in their focus on a student they wanted to better understand, including conducting an interview, analyzing the student's work, and checking in with the student about the data they collected.

I was surprised to see that only 41% of the survey participants listed exit notes as a regular (weekly) data collection tools. This was a research strategy modeled in the M.A.T. program. I do note that another 31% listed "exit notes" as a monthly tool. In follow-up interviews, several teacher researchers shared how they use exit notes to check students' understanding and to gather data about what is working well/less well in the class.

Survey participants also noted their use of data from state scoring guides, eavesdropping during student work sessions, notes taken during student discussions, students' self-evaluation of work, and conversations with colleagues about specific students.

I was also struck by the role of e-mail as a teacher research tool. I did not include this in my survey but several participants listed e-mail exchanges with parents as a way to gather data. One survey participant wrote, "Responses from parents to my weekly e-mails, outlining what we did in class, provide rich information." An interviewee, with five years of teaching experience, noted her appreciation for the e-mail exchanges she has with parents. She, too, sends a weekly e-mail with bullet points about the class. She values the comments and details about conversations

that happen at home, as well as insights regarding individual students. She is also grateful for the thank you e-mails. She keeps these thank you e-mails in her "Why I Teach File." (See more on affirmation in the section labeled Teacher Research as Affirmation/Confirmation.)   She did note that there is a downside to this weekly e-mail correspondence. It gives "helicopter parents" more reasons to contact her about their child and his/his grade and performance.

Graduates' responses demonstrate that teacher research is not an add-on; it is an essential part of their teaching practice. As one participant noted, "I don't think about 'research' very much because it's ingrained in what I do. Just about every activity or happening in the classroom is some kind of research….I would say that research is a necessity—like air or water. You cannot live (as a teacher) without it."

But is this Teacher Research or Just Good Teaching Practice?

A number of participants were cautious about describing themselves as teacher researchers. They used the qualifier "informal" in characterizing their research. One interviewee reported she had to look up "teacher research" before she completed the survey because she wasn't sure she really did it. But in describing their inquiry efforts, participants provided compelling evidence that they were "systematic and intentional" in their inquiry (Cochran-Smith & Lytle, 1993, 1999).   They had systems for writing down observations of students, including creating a section for student observations in their daily lesson plans or keeping a notebook with a section for student observations.   One interviewee shared the journal in which she notes what she hears during students' group work sessions.   Another shared her spiral notebook, which included notes on students' behavior, a list of students who were struggling to read the required novel, and summaries of her one-one-check-ins with students. She keeps a spiral notebook of data for each class. Participants also described how they make notes of patterns as they evaluate student work and use this data to chart students' learning, to design follow-up lessons to address misconceptions or errors, to refine/redesign the unit before they teach it again, and to identify differentiation strategies that would support the diverse learners in their classrooms. They described their follow-up efforts with students to check the patterns they were seeing, which included conducting interviews and surveys, and sharing the patterns they observed in students' work with students—individually and with the entire class.

Survey participants listed at least one research question that resulted from their initial data collection. In some cases participants researched the same question in every class period for a semester or even a year. One beginning teacher has been trying out and researching grading strategies for the past three years. In other cases, they had multiple research questions they were exploring for varied lengths of time.   Participants were candid about the discoveries that resulted from researching their questions. For example, the routine of daily writing prompts helps sixth graders become more comfortable with writing. A prompt about *scars* was the favorite of this group. A high school teacher in her second year discovered that allowing her students to listen to their ipods supported their writing. This required challenging a school rule about no ipods in the classroom.

Several interviewees volunteered that teacher research is not the common practice of their colleagues. And this is becoming even more the case as school districts emphasize test score data over classroom data from teachers. But this has not deterred participants from continuing to conduct teacher research. In the words of one survey participant, "It helps me think through and rethink lesson and units based on what I see from my students—not what outside sources say I

should be doing in my classroom." Another graduate noted, "The kids get their feedback, their grade, but with teacher research I also learn so much that helps me plan the next steps." The graduates in this study demonstrate that they use teacher research to understand their students and improve their practice in specific concrete ways (Hubbard & Power, 1999).

Specifically, participants noted their use of teacher research to know their students; this was their primary use of data. They also commented on the use of data in support of curriculum development, and the power of teacher research to affirm/confirm their practice as teachers. Each of these categories is explored below.

Teacher Research to Know/Support Students

Survey participants noted the importance of students as research data, "Students are the best resources for what's happening (and what's possible) in the classroom. Teacher research invites, requires their voices." Likert scale survey data show the following:
- 100% Agree or Strongly Agree that "teacher research supports my knowledge of students.
- 86% Agree or Strongly Agree that they "use teacher research to know their students as readers."
- 100% Agree or Strongly Agree that they use "teacher research to know their students as writers."
- 96% Agree or Strongly Agree that they use" teacher research to know their students as learners."

Participants also recognize the importance of teacher research data to check their assumptions about student learning (96% Agree or Strongly Agree). One interview participant noted the importance of "eavesdropping" during group work to check students' understanding and on-task behavior. Another described the use of open-ended questions to solicit student feedback. A survey participant described teacher research as "a way to hear the pulse of my students' learning."

An interview participant shared an epiphany she had regarding reading instruction. She had been reading aloud to a group of middle school students targeted as struggling readers. She knew the research about the importance of kids following along in the text as they listened to develop fluency. But her students were "fighting her tooth and nail." Their resistance to following along in the text as she read surprised her. When she asked her students for feedback, they informed her that "she was reading too fast so they could not follow along." She realized that this group of readers needed more time to decode and comprehend, and if they got lost, they could not find where she was in the text. So she slowed down her reading. And she found that projecting a copy of the text and asking a good reader to model where he/she was in the text by using a sheet of paper to track his or her reading supported her students. She also gave them choice as to whether they wanted to follow along, recognizing that not all students benefited from tracking the text. She noted the importance of asking why instead of making assumptions that students just didn't want to do what was being asked.

Taking time to check-in changes the relationship between teacher and student. Over and over participants described how teacher research helps them connect with their students. They tout the use of dialogue journals and letters in support of written conversations. One interviewee commented on the value of daily dialogue journals, "Kids share details about their personal lives and they will tell me if they don't get something." Interview participants also value the one-on-

one conferences they have with students: to check in, to check understanding, to provide instruction, and to demonstrate that each student matters. As one interviewee noted, "Check-in conferences make every student feel visible." Another summarizes, "I find building relationships with students opens me up to teacher research…. If you see students as human beings, you cannot help but try and seek ways to support them through teacher research."

Teacher Research in Support of Curriculum Development

Data from student dialogue journals/letters, check-in conferences, as well as classroom observations, and close analyses of students' work, provide insights that support curriculum development. Survey results indicate that 79% of participants Agree or Strongly Agree that "teacher research supports my knowledge of curriculum." The survey results also show:
  • 86% use teacher research to assess/analyze curriculum materials.
  • 93% use teacher research to analyze curriculum planning.
Interview participants spoke of teacher research in support of ongoing curriculum development and instruction. A third year teacher described how she keeps a running list of patterns she sees in student work. She uses this list to develop minilessons. Another interviewee shared the story of reading essay exams and realizing her students did not know how to use a thesis statement. She made a note and addressed this in her next unit. Two interviewees shared their habit of making note, often on sticky notes, of errors they observe in students' writing, such as apostrophes in contractions. They use this data to develop and teach minilessons.

Participants also spoke to teacher research in support of unit planning. A third year teacher interviewee described how she uses her lesson plans as a place to make notes on what she sees and hears. She looks back at these notes in support of future planning. And she keeps all of her unit plans, along with lists of what worked well/less well and ideas she wants to try. Another commented, "I rely on teacher research to adapt my practice. I am always looking back and trying to make new mistakes as I go forward."

I was pleased to see a number of survey participants and several interviewees tout the importance of doing the assignments they ask their students to do. I model this and stress its importance during the M.A.T. program. One survey participant, a second year teacher, wrote, "I do every project I ask the students to do (including long essays) to make sure it's valuable and worthwhile. I also take every test I give." A second year teacher I interviewed also spoke to the importance of doing the work she assigns to students. She finds, "It shows me if the work is too hard or too easy. And it shows kids the work is valuable because I've done it."

Several participants described their research of technology use in their classroom practice, including blogs, online discussions, literary responses on Facebook, podcasts, and wikibooks. They noted the pressure they feel to incorporate technology in support of 21st century learning. Teacher research provides them with data to speak to the benefits but also the challenges of technology in their classroom. As one teacher discovered, the online textbook she was strongly encouraged to use with her middle school students was not the best tool for every student. She learned this when a student blurted out, "I can't think with all this stuff on the screen!" Another participant described her plan to share her teacher research findings with the principal about technology mandates from the district that were working well but also those that were not serving her students well.

A survey participant summarized the role of teacher research in her practice as follows:

"Teacher research gives you evidence that allows you to test your hypothesis about why something in your classroom either is or is not working. Then, like any analyst or scientist you can go back, tweak your experiment, and find new evidence that allows you to change or support your hypothesis or practice. In an exceedingly subjective, emotion-filled profession research can be a very objective measurement of accomplishments, which we all need."

Teacher Research as Affirmation/Confirmation

Survey participants and interviewees noted their use of teacher research to evaluate their classroom practice and their identity as a teacher:
- • 93% of survey participants indicated they use teacher research to analyze/reflect on their teaching.
- • 96% agreed that teacher research supported their knowledge of self as a teacher.

And teacher research data allows them to see how what they are doing as teachers makes a difference in the lives and learning of their students.

One interviewee commented on the affirmation he felt after reading his ninth-grade students self-evaluations. Another interviewee commented that teacher research "keeps her energized and focused on what her kids need."

A second year teacher commented, "When you have data that students are connecting— that a book works—it's like fireworks!"

Another interviewee noted that she makes time for teacher research because it affirms her work but she also shares her findings with students to affirm their role in her classroom practice and celebrate their learning. She notes, "School is a learning enterprise and we need to show this to students."

Conclusions and Implications

The classroom research being conducted by the teachers in this study serves as compelling evidence that the introduction of teacher research in their preservice program instilled in these teachers the habit of classroom inquiry. They observe, interview, collect, analyze, assess, question, adjust, and reflect. When faced with the myriad of challenges that confront beginning teachers and the culture of schools that discourage inquiry, rather than abandon what they learned about teacher research in their preservice program, these beginning teachers draw on teacher research to inform and support their work. This finding stands in contrast to literature that preservice teacher education is washed out by the culture of schools (e.g. Feiman-Nemser, 2001; Nagel, Golez, Nieto, & Whitney, 1999).

Although the beginning teachers in this study describe the challenges of teacher research, they do not view teacher research as an add-on; rather, it is a routine responsibility. They view "learning from teaching as an integral part of the activity of teaching" (Cochran-Smith & Lytle, 1993, p. 63).

Teacher research also provides a "critical basis for decisions about practices" (Cochran-Smith & Lytle, 1993, p. 63). The beginning teacher researchers in this study demonstrate that teacher research provides "firsthand, everyday data on how to initiate optimal learning environments within complex social settings, characterized by a variety of learning differences and needs" (Hubbard & Power, 1999). Data from teacher research provides information to confirm or to call into question classroom practices, teaching methods, curriculum materials, assessment strategies, and even school polices. Teacher research provides information that can

be used immediately to change classroom practice. As one interview participant noted, "Teacher research is not abstract—use this in six years. It's information you could use tomorrow. Immediate information."

Implications for Preservice Teacher Education

For teacher research to become part of preservice teacher education, teacher educators and the structure of preservice education needs to change. To teach teacher research, teacher educators will need to know and understand teacher research. Their own experiences with qualitative research will support this effort, but being teacher researchers themselves—doing teacher research—would allow them to model teacher research as an integral part of teaching practice. A commitment to teacher research as teacher educators is consistent with self-study, the term used for teacher research conducted by teacher educators. Kenneth Zeichner (1998) claimed during his vice-presidential address to the American Educational Research Association Annual Meeting that "the birth of self-study in the teacher education movement around 1990, has been probably the single most significant development ever in the field of teacher education research" (p. 19). He went on to note, "This disciplined and systematic inquiry in one's own teaching practice…provides a model for prospective teachers of the kind of inquiry that more and more teacher educators are hoping their students employ" (p. 41). As teacher educators we cannot advocate an approach to teaching that we do not practice ourselves. Interview participants in this study cited the modeling of teacher research by professors as a significant factor in their learning about teacher research.

In addition to being teacher researchers themselves, teacher educators need to provide preservice teachers with examples of practicing teacher researchers within their disciplines. Participants in this study spoke to the importance of reading the work of teacher researchers. Inviting beginning teacher researchers into teacher education classes to share how teacher research is an integral part of their teaching practice is also beneficial to preservice teachers. It serves to remind and reinforce for beginning teachers the important work they do as teacher researchers.

Teacher education programs will also need to examine how their current practicum expectations allow for and support teacher research. Many teacher education programs send preservice teachers into the schools to take on full-time teaching responsibilities almost upon arrival. The focus of these practica is on learning by doing. Dewey (1904) warns that this learn by doing approach leads to mediocre proficiency. He calls instead for time spent observing, learning to be "students of teaching." Only after time spent observing—as students of teaching—should preservice teachers take on teaching responsibilities. And this taking on of responsibilities should be gradual, beginning with one-on-one and small group teaching, followed by whole lessons, but just a few at a time—with support from a mentor teacher. Throughout these efforts, beginning teachers would be learning to collect and analyze data. Teacher research would be seen as an integral part of the practice of teaching, the very foundation of teaching practice. Only after they had honed their skills as teacher researchers would preservice teachers be ready to take on the daily rigors of a classroom, and again this experience should have limits on it, such as a reduced teaching load to allow for a continued focus on teacher research. Participants in this study spoke to the importance of being given time and support to conduct teacher research.

Implications of Teacher Research to Inform the Knowledge Base for Teaching

Teacher research can expand the knowledge base of teaching by including the research findings of classroom teachers. Unlike other professions, the best practices of practitioners are lost to current and future colleagues. "Teaching is conducted without an audience of peers. It is devoid of a history of practice" (Shulman, 1987, p. 12). Teacher research can illuminate what teachers know and help to create a history of practice.

Teacher research should inform the work of teacher educators regarding what teachers need to know to teach. Teacher research should also be part of debates regarding teacher preparation and quality—keeping the focus on the complexities of teaching and why teachers need to inquire about such in contrast to efforts to reduce teaching to observable behaviors. This view of teaching as complex work that requires teachers to be researchers is consistent with efforts to professionalize teaching, which include requiring teachers to take on the responsibility of investigating their own practice. Teacher research can also support the intellectual life of teachers. An emphasis on teaching as thinking has the potential to attract intelligent students to the field and to keep them in the field. Most importantly, teacher research gives teachers voice. No longer will the only voices or the loudest voices be those of outside experts who may or may not have classroom experience. Teacher researchers will share their own discoveries—what they know from observing and analyzing their classroom practice, what they know about student learning and curriculum that supports student learning, and what they know about what classrooms could and should be.

Why Teacher Research

As one beginning teacher research participant explained:
[T]eacher research is what keeps me honest. It keeps me from just doing what is easy or comes naturally and forces me to stretch in order to find new ways that are best for my students. It is also what keeps teaching interesting. It allows me to approach my work in an inquiry-based manner so that I am learning with the students. Teacher research lets me speak up in staff meetings and in my administrator's office and be heard because people know that my opinions are based on evidence and forethought. In short, it is a lot of hard work but it is always interesting work; it is a big part of what keeps me going.

Participants in this study confirm that learning about teacher research during their teacher preparation instilled the habit of teacher research. Their classroom inquiry informs, affirms, and sustains the practice of these beginning teachers. It gives them voice in their profession.

The time is ripe for teachers to bring their research knowledge to discussions of 21st century education. Policy makers and outside education researchers cannot be the only voices heard or teachers will be reduced to the role of technicians—carrying out mandates from above without considering the context in which they teach, and most importantly, the needs of their students. Teachers need to speak up about what they know from researching their own classroom practice. They need to speak out on how educational reforms they have implemented and researched impact their work, their students. The unique perspective of teacher researchers must be part of the conversation about how to best prepare and retain teachers to serve the needs of all learners.

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