Teacher Research as a Tool for Teacher Professional Learning and Development

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Abstract: The authors report findings from a study examining teachers' experiences conducting research in their classrooms and their perceptions of teacher research as a tool for professional learning and development. Data from open-ended surveys (*n* = 38) and group interviews (*n* = 18) suggest that: (a) teachers value self-direction and choice in professional learning integral to teacher research; and (b) teacher research changes how educators think about professional development and teaching. The authors conclude that teacher research should be utilized as a professional development experience for educators and that teachers should be provided choice in their professional learning.

Teacher Research as a Tool for Teacher Professional Learning and Development

The need to change current practices in PK-12 teacher professional development is well-established (Atay, 2008; Schwartz, 2019; Szabo, 2022; Zeichner, 2003). The recent pandemic and growing teacher shortage have illuminated the need for teachers to feel prepared, supported, and valued as professionals and practitioners. It is essential that teachers are provided professional learning opportunities that respond to their context-specific individual and immediate needs. Participants in our study confirm that professional development experiences designed by their districts often do not align with individual, classroom-based needs for improving practice and often do not lead to meaningful professional learning and growth.

Teacher research (or practitioner inquiry) challenges many existing professional learning structures, including one-size fits all professional development programs. As suggested by Dana and Yendol-Hoppey (2014), teacher research

> differs from traditional professional development for teachers, which has typically focused on the knowledge of an outside "expert" being shared with a group of teachers. This traditional model of professional growth, usually delivered as part of traditional staff development, may appear an efficient method of disseminating information but does not result in real and meaningful change in the classroom. (p. 13)

Teacher research, defined as teachers conducting research in their own classrooms, provides professional development that supports teachers' individual professional growth. It has been documented in the literature to improve the quality of teaching and student learning (Cochran-Smith, Barnatt, Friedman & Pine, 2009; Zeichner, 2003). Campbell (2013) suggests

that teacher research will produce knowledge about teaching and learning that is useful to other PK-12 educators while critically informing their practice and contributing to their overall professional learning. Furthermore, classroom-based inquiry allows for flexibility and individualization for teachers at various points in their careers and across classrooms. Teacher research also allows educators to align their professional learning with their changing needs across the career span.

Teacher Research and Professional Growth

Professional growth that is valuable to teachers as education professionals occurs when they feel necessity and interest in the topic and when they recognize the impact of their own learning on students, classrooms, and schools. Teacher research provides a framework for teachers to (a) pursue answers to questions they deem essential; (b) direct their own professional learning on topics of importance to them and their students; and (c) create opportunities for professional growth that is meaningful, timely, and significant. Teacher agency and voice resulting from teacher research can lead to improved teaching and student learning while contributing to a culture of individual and collective efficacy (Imants & Van der Wal, 2020; Zepeda, Lanoue, Rivera, & Shafer, 2022). Importantly, teacher research provides a process for teachers to identify and resolve problems or questions related to their practice and is uniquely differentiated for each teacher and their students.

Decades of literature regarding the importance of sustained, supported teacher professional development has resulted in better understanding of teachers' professional learning needs and expectations. It is imperative that professional development results in sustained teacher learning and professional growth that ultimately impacts their practice and student success while growing teachers' professional capacity (Fullan & Hargreaves, 2016).

As we know, "teachers' continuous engagement in professional learning activities is critical for improvement of their knowledge, instruction, and student learning" (Akiba and Liang, 2016, p. 99). Engagement can be understood as both personal interest and commitment as well as authentic opportunities for involvement. Expectations for teacher professional learning in contemporary classrooms include formal and informal collaboration, teacher-selected learning (Akiba & Liang, 2016; Campbell, 2017; Fullan & Hargreaves, 2016; Postholm, 2012; Svendsen, 2015) and teacher agency (Imants & Van der Wal, 2020; Zepeda, Lanoue, Rivera, & Shafer, 2022). It is commonly expected that teachers will be provided time for authentic, embedded professional learning that is sustained and sustainable. As suggested by Darling-Hammond (2017):

> Enabling teachers to continue to grow, learn, and be excited about their work depends on both ongoing high-quality learning opportunities and career opportunities that enable them to share their expertise in a variety of ways. Around the world, job embedded forms of professional learning are taking greater root, often organized around teachers' work with curriculum development through collaborative planning, lesson study, and action research of various kinds. Also increasing in many countries are opportunities for teachers to share their expertise with one another. (p. 303)

Teacher professional growth results from teachers' learning as they investigate their own practice through self-directed, collaborative, embedded, rigorous teacher research.

Teacher Research as Professional Development

According to Zeichner (2003), "It has been argued that teacher research as a form of professional development has often had a profound effect on those who have done it, in some cases transforming the classrooms and schools in which they work" (p. 303). There is potential for teacher research as a rigorous, informative, context-specific form of professional learning for teachers who engage in thorough and teacher-initiated research. Teacher research creates an opportunity for teachers to produce knowledge about teaching and learning (Campbell, 2013; Cochran-Smith, Barnatt, Friedman & Pine, 2009; Dana & Yendol-Hoppey, 2019; Zeichner, 2003) which we see as an essential contribution to teacher professional growth.

Teacher research that is job-embedded and arises from teachers' self-defined needs and interests presents an opportunity for teachers to learn about their students, their classrooms, and their teaching using a systematic, well-accepted methodology. Questions that drive teacher research originate from reflection on practice, interactions with colleagues, professional literature, or individual interests (Hubbard & Power 2003; Falk & Blumenreich 2009; Castle 2012; Perry et al., 2012), and have clear potential to be relevant to teachers' daily work with students.

Teacher research provides teachers an opportunity for deeper understanding of their daily work in classrooms leading to improved professional learning and growth (DiLucchio & Leaman, 2022). It is imperative that we follow successful programs that acknowledge teachers' self-defined needs and recognize teachers' potential for professional growth (Feiman-Nemser, 2012, p. 45). Teacher research, as a form of professional development, offers teachers the opportunity to investigate questions and issues focused intensively on the learners with whom they work every day. The recent COVID-19 pandemic and abrupt changes in teaching and learning in K-12 environments further justifies a need for teacher professional learning that is timely, classroom-based, and classroom or teacher specific. The research process helps teachers develop skills of inquiry, data collection, data analysis, reflection on practice, and examination of their practice while learning about their students' needs.

Research Design

Since 2007, we have worked with teachers conducting research in their classrooms as part of their M.Ed. program capstone experience. We have studied the research experiences of our graduate students who are practicing teachers in PK-12th grade settings. We draw on Cochran-Smith and Lytle (1993) who define teacher research as a "systematic and intentional inquiry carried out by teachers as an integral part of the activity of teaching and as a critical basis for decisions on practice" (p. 63).

The research question for this study was: *How does teacher research impact teachers' professional development and growth*? This guided our work during a two-year inquiry from 2019 to 2021. Following university institutional review board approval, we administered electronic surveys and conducted virtual focus group interviews with research participants. We recruited participants from a group of 137 teachers who completed their M.Ed. program between 2010 and 2018. Thirty-eight teachers completed electronic surveys (27.7% response rate) and seventeen of the thirty-eight participated in focus group interviews.

Electronic surveys included open-ended questions regarding teachers' experiences conducting research and their perceptions of the impact of that process on their professional learning and growth. Focus group interviews facilitated discussion regarding teachers' definitions of and experiences with teacher research for professional learning and development. Participants included kindergarten through high school teachers in public, private/parochial schools, and international settings with two to more than twenty years of teaching experience.

Researchers independently coded and analyzed data from surveys, coming together frequently to check and reflect on independent codes. Survey data shared with participants during focus group interviews served as a member check and reflection on initial theme identification. Focus group interviews were recorded and transcribed. As with analysis of survey responses, both researchers met regularly to check independent coding for efficacy of identified themes (Saldaña, 2013). This research was limited by sample size. Pseudonyms have been utilized throughout this article to maintain participant confidentiality.

Findings

Data from this study suggest that: (a) Teachers value self-direction and choice in professional learning; and (b) Teacher research changes how educators think about professional development and teaching. In this article, we discuss findings related to the importance of self-direction and choice, and how teacher research leads to changes in educators' thinking about professional learning as each of these has the potential to impact teacher professional learning and teacher preparation.

Teachers Value Self-Direction and Choice in Professional Learning

Teacher choice and self-direction in professional learning experiences are essential to teachers' professional growth. Through survey and interview responses, teachers indicated the importance of self-direction and choice in professional development. They described how their teacher research experiences provided choice in their professional learning. Directing their own professional learning through teacher research allowed teachers to maintain a focus on their students' needs. One teacher commented, "When I plan for my professional development, my research reminds me of what my focus and my values are for student success. I use my research to guide my plan for developing as an educator." Another teacher described the impact of choice on her future professional learning:

> Teacher-directed classroom research allows educators to determine areas of interest or need for their work and professional development. A large majority of professional development in education is weakened by the "one for all approach" and by settling for programs that allow quick and easy career advancement.

All teachers require occasional district-wide professional development, and many must make choices to pursue graduate coursework based on accessibility and affordability. These often do not include teacher research and do not offer choice to meet teachers' individual needs. Teacher research is intended to address each individual teachers' current and immediate questions and needs for professional learning. Teacher research has an immediate impact on the individual researcher, their students (current and future), their colleagues, and their school.

As suggested by one of our participants, "Conducting my teacher research was a starting point, not an endpoint. I will continue to use the model for ongoing professional development throughout my career in education." Teachers recognize the importance of choice in the teacher research process and in professional development endeavors. As we explored teachers' understandings and expectations of professional growth, numerous teachers reflected on the importance of self-direction and choice as essential in their learning and growth. "Lyla," a mid-career upper elementary teacher, explained:

> Professional growth for me, is doing what interests me. I'm interested in technology and always want to do something new. I specialize in math and go to any professional development offerings that are math related. Doing whatever makes you excited is professional growth—bringing that into your classroom. In teacher research, you get to choose what you're passionate about.

"Lisa," a primary grade teacher, explained:

> When we brainstormed topics for our teacher research, we identified things we wanted to change or problems we had in the classroom that we wanted to improve. I think when you're basing teacher research on something like that, it's going to improve your practice because you're going to find best practice.

While not all teachers will be motivated by choice and self-direction for professional learning, data from this study suggest that teachers recognize and value the opportunity to identify problems of practice and that this experience has led them to similar expectations across their careers for authentic and meaningful professional growth.

Teacher Research Changes How Educators Think About Professional Development and Teaching

Data suggest that the teacher research experience changes how teachers think about professional development and learning. They recognize the possibilities for their own learning by engaging an inquiry model that is new to them, and which allows them to focus on their students and their immediate. Teachers' survey and interview responses suggest that completing a rigorous, choice-driven teacher research experience changed their perceptions of teacher research and professional learning. One participant stated:

> When I began my research, I wasn't quite sure why I was given this challenge, other than it being a requirement of the course. However, when I was allowed to research an area of my choice, it afforded me the opportunity to do something teachers NEVER have time to do. I was able to explore a topic of interest, obtain scholarly materials concerning that topic, and develop, what I believe to be, a comprehensive plan to share with others and implement myself.

A second participant explained, "My work as a teacher researcher helped me grow as a professional and kept my students at the forefront. The students were always the main focus of this research, as they still are today." Other teachers reflected how their research changed their perceptions about teaching and learning or their understanding of professional development:

> I would say that I am now in a position to realize that my practice is firmly grounded and guided by current research in education, due to my experience conducting teacher research. The importance of ongoing professional development has been highlighted for me. I am motivated to continue my own personal and professional development whenever I notice a need or issue arise regarding my classroom practice

and have the skills necessary to find more information and resources that will aid me in becoming a more effective teacher.

"Lisa," a first grade teacher, explained, "It's a definite mindset shift, to not be stuck in what you've always done." Others share similar thoughts about a change in mindset as a result of teacher research: "Kyra," a middle school teacher, stated:

I think the biggest aspect of practice that changes is your mindset. You have to be open [to learning something new from your research] because when you're stuck in a way of doing something, you think you know what the answers are going to be and then you do this research and you come out of it differently.

These examples suggest that teachers experience a change in how they think about research, teacher research, teaching, and learning for both students and themselves. Participants' expectations for professional growth have changed as a result of their experience conducting research. They now recognize and expect more pertinent, relevant professional development opportunities. One teacher noted, "I feel conducting teacher research has helped me to be more aware of continuing my professional development to help benefit my students."

Several quotes from participants suggest their research experience led to a greater understanding of career-long professional learning. One participant explained that teacher research can lead to renewed interest in professional growth later in one's career:

It's easy to become stagnant … I'm just coasting, I know what I'm doing, I've been doing the same thing for years now, etc. … I hit a point in my teaching career where I got bored. My research motivated me to seek out different types of professional development. Our school offers a lot of administratively-decided professional development during the year. I found myself seeking out other opportunities to revive what I was doing in my classroom.

Furthermore, teachers described the increased confidence they developed through the teacher research experience; something that may contribute to their changed expectations for their professional learning. Participants commented that they built confidence to "try new things on my own" or to "try new things" that they may have otherwise not attempted and that traditional professional development has not encouraged. We see this as an essential change in teacher perceptions about learning and teaching and one that can inspire autonomy, continued teacher research, leadership, and the pursuit of authentic professional learning and growth.

Conclusions and Implications

As data from this study suggest, teachers recognize their own needs for professional growth and want to have decision-making control in their professional development opportunities. Teachers appreciate that teacher research provides an opportunity to select topics relevant to their individual students' needs and corresponds with their unique professional needs which vary across their teaching contexts and careers. Teachers' survey responses presented their view of professional growth as "a continuum that becomes more self-directed" while noting that teacher research leads to opportunities to create a "shift in one's mindset to examining our practice." Survey and interview responses indicated that teachers want to examine and change their teaching based on the group of learners each year. Importantly, they posit that professional growth must encompass teachers' individual interests and passions in addition to addressing district needs and initiatives. Participants

described how they use what they learned about their teaching, student learning, and the research process beyond the semester when they conduct their research. They have a new understanding of the possibilities for professional learning and growth.

Teachers report that they value teacher research as an authentic form of professional development, rooted in their needs and interests, and focused on their students. Teachers who engage in teacher research experiences see professional development differently afterward. They recognize quality professional learning and begin to expect similar effective experiences in their professional development choices. These conclusions suggest that teacher research should be utilized as a structure and opportunity to inspire meaningful teacher professional growth.

When teachers conduct research in their classrooms, following established research methodologies, they have an opportunity to examine questions of practice that are critical to them, their students, and their school community. Teacher research can provide a professional learning experience that is job-embedded, focused on student success, and teacher-led. Teachers identify problems of practice that are directly related to their students and classrooms. There is immediate and authentic buy-in and an immense opportunity for learning and growth.

As classrooms change and teachers have new questions about supporting students in a post-pandemic era, teacher research can allow teachers to investigate new problems of practice that are unpredictable and unprecedented. Furthermore, providing teachers the professional methodology and latitude to examine their own practice in a way that professionalizes their work may support efforts to retain teachers in this challenging time in education. As teacher educators, we can look for ways to support teachers in having choice in their professional learning. We can advocate at the district and policy levels for professional development opportunities that will challenge and improve their practice.

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Note

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