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The Research Portfolio

Educating Teacher Researchers on Data Analysis

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Teacher research is something that we (the authors) have found inspiring and renewing throughout our teaching in public schools and higher education. In the teacher research course sequence in our Masters of Arts in Teaching (MAT) program, candidates in our year-long course would inevitably ask the question, “What am I trying to do?” during their data analysis each spring. They found it challenging to make meaning of the collection of data they had amassed during student teaching. In an effort to build a stronger connection to the process of teacher research analysis for our candidates, we began to search for early, more effective ways to engage them in analysis. Our desire was to help candidates better understand the purpose and focus of analysis and to alleviate or reduce the frustration and confusion that often overwhelmed and clouded their view of the teacher research process. We did not want our candidates to walk away from this experience thinking teacher research was too abstract, too hard, or too time consuming to become part of their initial career experiences as teachers.

Our desire was to help candidates better understand the purpose and focus of analysis and to alleviate or reduce the frustration and confusion that often overwhelmed and clouded their view of the teacher research process.

Therefore, the purpose of our research, from 2007-2011, was to study the design and implementation of this newly developed assignment, the research portfolio (Cochran-Smith & Lytle, 1993, 1999, 2009). While we realize that there are many ways to introduce active engagement in teacher research, we wanted a process for teaching analysis that was practical, hands-on, and as relevant to day-to-day teaching as possible. Thus, our research question became, How does the research portfolio assignment support candidate learning and engagement around teacher research data analysis? The research portfolio was designed to help candidates practice the art of data collection and analysis during the first semester of the course sequence in order to prepare them for conducting their own teacher research project during the spring semester course while student teaching.

Our Philosophical Approach to Teacher Research

As teacher educators, three key elements of our shared philosophical stance have driven the design and implementation of this project: (a) the transformative role teacher research has the potential to play in one's practice, (b) the significant impact reflection can have on a teacher's career, and (c) the importance of teachers having tools to facilitate ongoing analysis and articulation of related learning. A description of our foundational beliefs that guided our choices related to the research portfolio assignment—both practically and theoretically—is provided in the following section.

Teacher Research

There are varied purposes for teacher research in the literature with goals that differ by audience, including the opportunity for teachers to improve professional practice (Auger & Wideman, 2000) and encouraging the development of transformative practices around social justice issues (Cochran-Smith & Lytle, 1993). We view the teacher research process as an active, inquiry-based learning experience where teachers are empowered to ask questions about their classrooms and respond to their students' learning needs and experiences in proactive and responsive ways (Caskey, 2005; Dana & Yendol-Silva, 2003; Hubbard & Power, 2003; Phillips & Carr, 2010; Shagoury & Power, 2012). Candidates are encouraged to consider their own attitudes towards what is happening in the classroom, focusing attention on the dispositions of teaching (Lattimer, 2012). As a result, we are guided by the view of teacher research as a form of self-study: "self-study research is: personal situated inquiry, critical collaborative inquiry, improved learning, a transparent and systematic research process, and knowledge generation and presentation" (Samaras, 2011, p. 10). These components frame our course and our expectations for candidates' final projects, and are the lens through which we view the outcomes of our teaching.

For many candidates, teacher research requires a paradigm shift—in perception of what it means to do research, as well as in the way educators think about teaching because of the focus on inquiry as a fundamental aspect of practice. An inquiry stance towards teaching focuses on identifying classroom problems, collecting and making judgments about relevant data, and modifying practices to result in improvements in teaching and learning (Green & Brown, 2006; Shagoury & Power, 2012). Engaging in this kind of work is often seen by candidates as an extra element of teaching rather than a fundamental aspect, and is seen as taking time and resources away from the focus on the clinical, practical aspects of the job (Poetter, 1997). Navigating this tension is one of the first, but not the last, steps that teacher educators must take to move conversation about teaching inquiry forward (Sugishita, 2003).

Reflection for Preservice Teachers

Our hope was that the research portfolio would provide our candidates with a rich and practical picture of the teacher research process prior to beginning their intensive projects during the second semester. A foundational element of teacher research is a notion and reliance on a model of reflection that encourages teachers to think deeply and carefully about the evidence they gather from the classroom (Dana & Yendol-Silva, 2003; Shagoury & Power, 2012). Like Chant,

Heafner, and Bennett (2004), we found that our candidates viewed reflection as an idea and activity “imposed upon them instead of a self-directed, learning activity” (p. 35).

We sought an approach that encouraged early, developing forms of reflection in a program and that often privileged product over deep thinking about beliefs and process.

There remains a need to develop strategies for teaching and modeling reflective practices within teacher preparation coursework that help candidates to take ownership of the process, and we felt that this project would provide this focus (Gelter, 2003; Grimmett & Erickson, 1988; Schon, 1987). Schon (1987) reminds us that reflective practitioners repeatedly and regularly question and respond to changes and interpretations of learning in the classroom. We sought an approach that encouraged early, developing forms of reflection in a program and that often privileged product over deep

thinking about beliefs and process. It is our view that the combination of teacher research, portfolio methodology, and reflection would provide just such an opportunity for our candidates.

The Portfolio Method & Process

We needed a strategy that would allow us to further our candidates’ understanding of data collection through a focused process that supported their analysis experiences throughout their field experiences. Watson and Wilcox (2000) urged educators to:

[. . .] select, and collect in one place, artifacts from their work which represent the daily conventions of their practice, and then, in the hermeneutic tradition, do a close reading (or annotation) of them. The interruption afforded by the method promotes a deeper understanding of self and of the meaning inherent in particular practices. (p. 64)

In the mindset of this model, we worked to find a medium that would lend itself well to the development of these collections with reflection encouraged through “close reading.” Portfolios can help preservice teachers gather, assemble, and construct meaning from significant data in their learning and teaching lives (Antonek, McCormick, & Donato, 1997; Lyons 2008; Zeichner & Wray, 2001). A strategy that would help organize and build reflection on the data collection experience was key to the success of this project—and help our candidates learn more about the influence that careful attention to data collection could have on their work because of the insights it can provide to otherwise missed elements of the classroom experience (Green & Brown, 2006).

Drawing from the literature on documentation and portfolios, we sought to have our candidates regularly collect data from practice that informed their understanding of the classroom, to write about these data, and to regularly reflect on their teaching experiences and learning about teaching. Philosophically, we agreed that engaging preservice teachers in the process of identifying and selecting data related to their teaching and learning, analyzing the data, and then presenting the data in a medium and structure that has meaning to the teaching candidate has the potential to improve practice (Bullar & Bullock, 2002; Hong & McNair, 2003; New, 2003; Turner & Krechevsky, 2003). Practically speaking, we knew that data coding and analysis are a

process that is often “foreign to most teachers’ daily work,” so we wanted to develop an approach that would provide “considerable instructional scaffolding” for candidates to be successful with these skills during their spring semester student teaching experience (Sugishita, 2003, p. 4).

Research Methods

Context of Study

This study took place at a small, liberal arts university within a 10-month Masters of Arts in Teaching (MAT) program where candidates spend the bulk of the spring semester in the field completing their student teaching. As stated earlier, the teacher research course sequence spans two semesters. During the fall semester, candidates spend 3½ days a week in courses on campus, one of which is Teacher Research 1. During the latter half of the fall semester, candidates complete a practicum field experience where they begin observing and then teaching a teacher work sample in a K-12 classroom. We sought to capitalize on their early experiences in the field as a place to begin collecting data and documenting their learning as teachers through our assignment of the research portfolio. For the two years preceding this research project, we conducted our own preliminary informal teacher research and refined our expectations and outcomes on the basis of feedback from candidates, from our collective discussions as instructors, and from our individual reflections on the process. All of this led us to study our design and use of research portfolios as a method for enhancing our instruction of research methods.

Participants

The data in this study come from two main sources: candidates and instructors. The typical cohort in this program has ranged from 67-80 candidates each year for a total of approximately 300 candidates over the course of the four years of data collection. The candidates range in age from 22 to 50+ with the average age of the cohort each year in the mid-late 20s. All candidates have an undergraduate degree in a relevant field they plan to teach and come to our program from varying collegiate and work backgrounds.

As instructors, the two of us have multiple years of experience with the teacher research course sequence (both here and at other universities). As instructors, we chose to research our own practice in this particular course sequence to help model the teacher research process for our candidates. This also allowed our candidates an interesting lens into our general practice as teachers—how we responded to the formal and informal feedback they provided us as our students, as it informed our practice.

The Actual Research Portfolio Assignment

The research portfolio is a tool we use to help candidates identify and investigate broad topics of interest (e.g., cooperative learning, classroom management, school policy, issues of equity) during their practicum field experience and first semester coursework. Throughout the semester, candidates collect data from MAT coursework and field experiences as a way to explore

questions and gain practice in this “mini teacher research project.” The assignment is designed to model the data collection and analysis process that can facilitate the teacher research process in a small and manageable way. The focus, format, organization, and structure of the collection process lead to the data analysis process completed at the end of the semester. In addition, this assignment is structured to help candidates prepare for the design and completion of their research projects in the spring. Possible data that candidates were encouraged to collect included the following: pictures from MAT classes, pictures and student work from field experience classrooms, MAT course assignments, journal observations and reflections, lesson plans, assignments, tickets to school programs, notes to and from students, colleagues, letters to parents, and students’ art.

The research portfolio consists of the following elements:

- *Focus:* Candidates select broad topics of interest related to schools, students, teaching, and learning (e.g., the integration of art in math, cooperative learning groups, writing in science).
- *Data:* Using their selected topics as a focus, candidates collect data throughout the semester from their MAT coursework and practicum sites that represent their thinking about selected topics. The final product includes 20-30 of the most significant data collected throughout the semester.
- *Format:* At the end of the semester, candidates decide the most appropriate medium to organize and present data, (e.g., binder, PowerPoint, multimedia).
- *Analysis:* Candidates organize exemplars of their data by themes that emerge using a grounded theory approach to analysis (Glaser & Strauss, 1967). Brief written statements articulating the connection between the artifact and the theme are included.

As a result, our research question focused on the following: How does the research portfolio assignment support candidate learning and engagement around teacher research data analysis? This provided us with a focused lens on candidate learning as well as our candidates’ engagement with a complex task and mental frame of reference for teaching performance.

Data Sources and Analysis

Our research question focused on the following: How does the research portfolio assignment support candidate learning and engagement around teacher research data analysis?

All of the artifact-based data collected for our study have been in the context of our normal instructional practice because we wanted to model the teacher research process for candidates in a way most similar to what they would be doing during their student teaching. The data we collected include: (a) four years of lesson plans for a total of eight course sections (including multiple sessions each year that we co-taught to all students); (b) eight syllabi and many emails from course planning; (c) assignment reflections, completed in and out of class; (d) e-memos (memos of their ongoing analysis and progress submitted electronically twice each semester, approximately 1100); (e) exit slips, student pictures, and student surveys completed in class on particular activities or themes in our data; (f) two Survey Monkey surveys that looked more holistically at our data and encouraged

anonymity; and (g) examples of candidate research portfolios (one per candidate). The research portfolio assignment was completed by candidates at the end of the fall semester; however, data were collected during both fall and spring semesters as we taught the second course in the sequence which supported our candidates in conducting research while student teaching.

The analysis of our research project involved a grounded theory approach. We used a cyclical method across each of the four years of the study (Glaser & Strauss, 1967), where we constantly visited and revisited our data in light of new experiences in classes, feedback from candidates, discussion notes among instructors, and our own reflections on our outcomes in the course. We met monthly to review the materials and achieve agreement about trends in each set of data. We always started with the data provided by candidates as we sought to identify categories that allowed us to look at the patterns and trends in candidate feedback and experiences. From this foundation, we then included our data from the instructor perspective to refine, clarify, and challenge the findings and themes that we identified from the candidate data. We also engaged in a process of working with the data that allowed us to analyze our own course data but also to create portraits of each other's course data sets so that we had both insider and outsider perspectives on the data to compare. Candidate data were then revisited to ensure consistency with the instructor perspectives and to further refine the themes that were identified. A complex matrix was then created that sought to reveal similarities and differences between the focal groups identified through the initial data analysis (Miles & Huberman, 1984). Because we engaged in this project as teacher research on our practice, we also used the emerging findings from the data to continue to build our course activities and the research portfolio assignment to better meet the needs of candidates throughout the study period.

Findings

Our data set has given us the opportunity to explore the research portfolio and related teacher research instructional issues from many perspectives. The most useful finding from the data analysis process over the last four years has been learning about the strong reactions our candidates have to the four elements of the research portfolio (focus, format, data collection, and the analysis process). In this paper, we chose to focus on this main finding and explore what it means in detail for our instruction and for our learners. The data illustrate that these reactions fall into three categories of learners that roughly correlate performance (both in class and on the final assignment) with engagement. We have defined these categories to be: (a) willing learners, (b) committed strugglers, and (c) dissatisfied learners. (Please note: these terms are used to describe candidates' engagement with the activity and not the individual character of the candidates.) Throughout our data set, this presentation appeared in each type of data we collected from our practice and was reflected in our students' learning and work. This section looks at each type of candidate learner and cites characteristics typical of candidate responses to the research portfolio assignment as well as their learning outcomes.

Candidate Responses to the Experience and Assignment

Willing learners. We refer to those candidates who easily and eagerly engage in the research portfolio process as the "willing learners." Approximately 50% of the candidates fall into this category and remain there across the year. These are the candidates who automatically react to the four elements of the assignment in a positive and agreeable way. They learn that teacher

research analysis is an ongoing, open-ended enterprise and are comfortable with this view. When it comes to determining a focus for their research, they generate topics easily and early in the semester. They appear to have many interests and are excited to select one and explore it in their fall practicum classrooms. As one candidate wrote at the end of the year:

This project [research portfolio] has not felt like “work” to me because I genuinely love to read and want students to share that love. The students and I connected through books via this project. When I do have my own classroom, I want to look for ways to cultivate the excitement and relationship with my students that has been a result of this research [portfolio] project.

The willing learners “trust” that we have developed an assignment that is workable and useful, so they do not outwardly question or challenge the assignment guidelines. They are happy to go along for the ride and see where they end up.

Additionally, the willing learners are often attracted to the non-traditional format of the assignment. They are enthusiastic about the emphasis on process and enjoy engaging in the independent creation of their own systems for collecting and organizing data. They recognize that teaching and learning can include many approaches and that practicing this has some value for them as future teachers. One candidate who reflected on the nature of the assignment stated that “[the research portfolio is] a fantastic process to look at different aspects of teaching and learning. You get to see the creative side of us. A different way to see our growth.” When it comes to the data analysis requirement, willing learners are able to learn to identify significant data and suspend the final conclusions and connections associated with those data. They are open-minded about the potential learning that might come from a variety of the data sources. Willing learners tend to be flexible about what might end up working and are not attached to the notion that because they collected it, they must somehow incorporate it into their final product. While willing learners do not necessarily end up with more data in their collection than their peers, they have learned to see them in different ways, value them as relevant elements of their project, and revisit them in diverse contexts to see them for all the potential that they might possess in representing the found themes in the portfolio.

Finally, the data show that willing learners tend to understand, early on in the course, the teacher research process and thus embrace the relationship between the ongoing data analysis and lessons about teaching to be learned as a result of the process. They are able to visualize both the process and the outcome as related but open-ended. One candidate said, “I loved putting this portfolio together. It was like watching a dream take shape. The collection started very random [sic] but themes quickly began to emerge.”

Committed strugglers. The data demonstrate a second kind of candidate responder to the assignment: committed strugglers. Approximately 40% of the candidates fall into this category. These are the candidates who struggle to engage in the assignment but are eventually able to connect with it and find some value in it by the end of the semester. Commonly, they are candidates who are goal-driven and find the lack of emphasis at the beginning of the course on the specifics of the final project to be frustrating. As a result, the committed strugglers can be

identified by their tendency to be hesitant about embracing the assignment requirements because they feel unsure about where they are headed.

When it comes time to select a focus for the research portfolio, they have difficulty narrowing their topic to a meaningful goal because they do not see the connection to an outcome they can't quite imagine. For example, a person may be interested in integrating literacy into the high school math curriculum, but is unable to narrow the concept of literacy to something that is tangible. As a result, the committed strugglers are often those candidates who change their topic throughout the semester and often end up with a topic that they did not start out exploring early on in the semester.

What stands out about these candidates is that they experience frustration early on because they do not see a clear end point or goal to the collecting process, but they are willing to suspend their skepticism and persist in making sense of the assignment in spite of their struggles. Committed strugglers do not cut corners and work hard to take an academic approach, which enables them to gain learning from themes generated near the end of the semester. One candidate who falls into this category said the following at the end of the semester:

This process was one that took a lot of faith and trust on my end [. . .]. It was slightly frustrating to not know exactly how it was going to turn out when I started. I like having an end goal to visualize and that was certainly not the case with this project.

Committed strugglers also do not quickly or easily understand the point of collecting data and understanding how they are going to learn anything from what feels like a "random" collection of things. In terms of the data analysis process, committed strugglers often are uncomfortable with the ambiguity of analysis, categorizing, seeing patterns, or drawing implications. But, what helps this group of candidates the most is a willingness to stay engaged with the process, and therefore they are often able to realize last-minute insights from the process. Whether this is because they are simply playing the role of the "good candidate" or willingly trying to learn from the experience is unclear. Many express relief and enchantment about the last-minute insights gained. Comments from candidates included:

The process of creating this [research] portfolio has been a complicated, frustrating, time consuming, [and] beautiful journey [. . .].

I have experienced the importance of letting a process guide me.

As a candidate, I am extremely product-oriented, and I have difficulty just allowing myself to play with ideas and concepts. This project gave me the opportunity to practice that skill.

This process can be difficult for some because our program moves quickly and thus candidates have to select a topic quickly, before they have had much in the way of teaching experience. In the first few years of the study, we used the beginning of the semester to take candidates through a series of activities that help them brainstorm educational topics of interest that they may want

to explore in the classroom. The short time frame in which they had to choose a key topic challenged those who did not easily arrive at a topic.

Dissatisfied learners. Those candidates who struggle throughout the process-oriented assignment and either do not see the point of the approach or continue to believe that it is not a valid research strategy are referred to as dissatisfied learners. Approximately 10% of the candidates are in this category. While we are glad that this is not the largest group of candidates in the class, each year we remain concerned that a small portion of candidates complete their fall teaching experiences with this view of teacher research, and we struggle with how to balance our desire that they are fully engaged with the potential the approach offers them and their own preferences for inquiry.

This group typically lacks the ability to develop a topic of interest and often requires significant intervention by faculty to try and help them get to the point of choosing a topic. They also struggle to take ownership of this process and rarely show any investment in the final topic that they end up selecting. As described in the previous section, our shift to a more open-ended and shared focus has been one strategy recently introduced to address this concern. These candidates are uncomfortable with the assignment from the very beginning of the year and continue to express discomfort throughout the semester, failing to connect to either the process or the assignment itself as something they can really learn from. As one candidate bluntly put it, “I didn’t get the point of this assignment.”

These candidates never make meaningful connections between the data and what they learned about themselves, their students, and teaching, as expressed by one of these students: “It didn’t apply to my student teaching.” They fail to see how the data represent their classroom experiences, and how they might learn from it. Candidates in this category make comments such as, “Remembering to collect data was hard.” As a result, they also struggle to connect with the data analysis process and fail to realize the potential for the various analysis strategies that we teach them. One candidate focused on the nuances of the analysis process commenting, “The analysis was hard. I felt like I could make the data say whatever I wanted it to.” As a result, candidates in this group tend to write off teacher research as one of two things: (a) less than relevant and not valid research or (b) as simply a limited way to study education.

Implications

So what do we learn from viewing our course and project outcomes through these three lenses of candidate engagement? The connections between their responses and our practice are inextricably linked. We have learned several key lessons about our assignment that we believe influence our teaching. Not surprisingly, we have been reminded that certain alternative teaching and learning methods work more effectively with some candidates than others. If instructors use alternative methods to teach data collection and analysis, with candidates unprepared to learn that way, they may need to develop key readiness

If instructors use alternative methods to teach data collection and analysis, with candidates unprepared to learn that way, they may need to develop key readiness methods to prepare those candidates.

methods to prepare those candidates to get the content, value, and skills associated with the alternative methods. More than half of the learners did find the research portfolio a useful and relevant method for data collection and analysis practical to classroom teachers, encouraging us to continue to work with candidates through this process. This understanding of our candidates as learners has provided us with rich opportunities to best support our candidates as we attempt to help them integrate teacher research as a habit of teaching. Thus, we will continue to integrate process-oriented assignments into our teaching.

Alternative Ways to Teach and Learn

One of our key findings, not surprisingly, focuses on the nature of introducing a teacher research method that seems dissimilar to the type of pedagogy, assessment, or general stance of the rest of the candidates' academic coursework. The research portfolio, as a course assignment and activity, captivates and engages those who are the early adopters of the concept of teacher research. It provides a process and medium that helps them to construct meaning, synthesize key ideas from MAT coursework and field experiences, and reflect on their practice. For example, one candidate stated:

I am inspired by my experiences with teacher research to continue with my new calling. The process has been very challenging in the midst of all of the other requirements of our program and of the needs of our students. Despite the challenge, I have discovered that my internal foundation as a teacher is intact. The most important point that my research experience has reinforced is that I remain a learner as well as a teacher—as long as I continue to question with an open mind, I will continue to improve.

Our work with the research portfolio has caused us to be more explicit with candidates about helping them identify what they are doing as teachers and how it may impact their students' learning as a key impact of their professional growth (Lattimer, 2012). It helped us to identify different aspects of candidate learning in this process, and thus how we can better explain and scaffold the assignment and its long-range benefits to their work as teachers. We believe that this is an important step in guiding and developing candidate understanding of teacher research, but also our own clarity about what we are doing and why. This process fosters a great deal of conversation between us as instructors and encourages us to consider how we are teaching our candidates to engage in the research process.

As an activity, the research portfolio does make it possible to encourage those who do not easily accept or understand the emergent process of teacher research. It certainly moves them closer to understanding the process for the final teacher research projects in the second semester. In that vein, we feel we have developed an approach to data collection and analysis that opens the door for the majority of our candidates, and makes it possible for them to appreciate the range of classroom data which make up a teachers' domain for purposes of analyzing their teaching and student learning, something they may have considered foreign to daily teaching. As one candidate from the most recent group of graduates reflected at the end of the year:

I have been trained to approach data from a scientific mind: do I prove or not prove my hypothesis? In this process, I had certain beliefs about how literature would affect my

[mathematics] classroom. When those failed in this particular class, I was unsure how to proceed. Did that mean I failed or disproved the value of literature in this math class? Since the question was open-ended, I had no answer. All I could do was keep trying new things. In the end, I realized that the process of continually analyzing, questioning, and trying new things *is* teacher research. I do not have to have an exact answer to my question. In the end, I will probably always have fewer answers to my questions. This was an eye-opening experience and has allowed me to expand my thinking about how I approach teaching.

For whatever reason, the research portfolio process seems to open dialogue in a practical way for those candidates who may have struggled with the idea of making teacher research a logical part of their practice. As one commented, “Even though I was resistant in the beginning, I think this project has made me a more reflective teacher. A research project can tell you a lot about the type of teacher you are and where you are heading, but you have to be open to discovering those things about yourself and thankfully I think I have become that kind of teacher.” While we are not convinced that it is a magic bullet for addressing their concerns or perspectives about classroom teacher research, the fact that these conversations are raised and developed early in the year makes it possible for us to have a greater impact on candidate awareness of the value of teacher research. We are reassured by comments like the following:

I was really concerned with making this huge research discovery and proving my own pre-judgments, but that’s not what it is about at all. It is about how I as an educator can improve what I am doing in the classroom to make learning more meaningful for my students.

A Process Approach to Learning Teacher Research

The research portfolio encourages us to trust our own teaching process and beliefs that the assignment provides an effective stepping stone for candidates. By continuing to study our own work, we reflect on and revise our teaching in regular and meaningful ways. The research portfolio causes us to continually rethink the assignment to find ways to bring in or respond to the dissatisfied learners, yet maintain the core of the assignment so that it challenges and interests the two other groups of candidates. We view this as a hallmark of effective teaching—that we recognize and respond to the distinctions between our candidates as learners and our content, the way they affect each other, and the power of building a deep understanding of our commitments to teacher education.

Ultimately, the research portfolio assignment has achieved one of our major goals of giving all candidates first-hand experience in data collection and analysis as teacher research during the early stages of the teacher preparation experience. It is our hope and belief that starting early exploring reliable methods for making teacher research practical can make it possible for candidates to develop deeper, more refined understandings of teacher research as both a process and habit of mind.

Candidate “Readiness”

We still need to do more to determine how to differentiate instruction so that those who are ready can move forward, and those who are not are brought along in ways that support their learning. We seek to provide continued explicitness about the intentionality of the process orientation of the assignment as one way of helping move all candidates forward in the learning of this assignment. We constantly struggle to find the balance between privileging process and supporting those candidates who are uncomfortable with learning through structured inquiry. We want our candidates to understand the process and appreciate how it relates to teacher research. More than anything, we do not want them to carry negative feelings into the spring teacher research project that undermine their learning in that context.

Our efforts to remove the emphasis on “choosing a topic,” that feels so final and demanding to some candidates, by asking our more open-ended question of “What can be learned about students’ learning preferences from looking at the data?” encourages a view of curiosity and structure at the same time. So far, this seemed to allow our candidates to fully benefit from the data analysis learning process, but also learn from the experience in positive and productive ways. Yet, we continue to struggle with the balance of choice and ownership we want candidates to feel for the project and the reality of determining how to better help candidates identify a topic of interest when they struggle to identify their own—our goal is to help them maintain ownership. Asking open-ended questions to frame the project while also encouraging and accepting their unique, individual answers to that question is the territory we are now navigating.

Conclusion

We find that our understandings about this project relate to two areas: faculty learning, and candidate learning and engagement. We see the value of exposing all types of candidates to the process and values of the assignment. We now recognize the necessary and important role of being explicit about our own process and values so candidates can work to understand what we hope to achieve, even if there is uncertainty (Sugishita, 2003). Finally, we see value in finding ways to push candidates outside of their comfort zones as teachers and learners, and explain in greater detail how this can positively affect their learning as well as their future teaching.

For us, the rich set of data generated by this kind of study of our own practice informed our thinking about teacher research with novice teachers, while also helping us to develop some exemplary practices that aid us in teaching future teachers to be classroom-based researchers. As Sugishita (2003) reminds us, “Inquiry is hard work, both for educators and for novice classroom practitioners. It is essential, however, that our instructional objectives remain focused on the long-term goal of helping teachers to develop a sound understanding of themselves and their work through ongoing reflection and systematic investigation into their practices” (p. 7). We do this with the goal that our candidates will be able to realize and appreciate the potential of teacher research as a self-study process that will guide them in the future challenges they will encounter throughout their teaching lives. We continue to research this experience for our future candidates while also working to implement greater connections between course and field in our candidates’ learning.

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