JTAR

Journal of Teacher Action Research - Volume 7, Issue 1, 2020,
practicalteacherresearch.com, ISSN # 2332-2233

Journal of Teacher Action Research
Volume 7, Issue 1, 2020

JTAR

About the Journal

Founded in 2013, the Journal of Teacher Action Research (ISSN: 2332-2233) is a peer-reviewed online journal indexed with EBSCO that seeks practical research that can be implemented in Pre-Kindergarten through Post-Secondary classrooms. The primary function of this journal is to provide classroom teachers and researchers a means for sharing classroom practices.

The journal accepts articles for peer-review that describe classroom practice which positively impacts student learning. We define teacher action research as teachers (at all levels) studying their practice and/or their students' learning in a methodical way in order to inform classroom practice. Articles submitted to the journal should demonstrate an action research focus with intent to improve the author's practice.

Editorial Team

www.practicalteacherresearch.com

USING ETHNOGRAPHIC OBSERVATION TO SUPPORT PROSPECTIVE TEACHERS IN SEPARATING OBSERVATION AND INFERENCE

Meredith McCool

Sweet Briar College

Abstract Through an action research inquiry conducted during an early field experience course, I supported prospective teachers in separating observation and inference by training them in the use of ethnographic observation tools. The practice of ethnographic observation has the potential to support prospective teachers in uncovering the social practices of the classroom by listening, observing, and understanding that what happens in classrooms is socially constructed through language (Frank & Uy, 2004). I explored my use of ethnographic observation techniques in order to help prospective teachers capture what teachers and students say and do and facilitate decomposition of practice (Grossman, 2011) prior to the point when pre-service teachers begin to observe and decompose their own practices.

Keywords: teacher action research, ethnographic observation, teacher education, decomposition of practice

Introduction

During my student teaching experience, I invited my third graders to draw their class tree. We sat in a semi-circle surrounding the birch located just outside our classroom window. Although I directed their attention to the two-trunked tree in front of them, only one student drew *our* class tree; the rest drew *a* tree—the stereotypical, quintessential tree in their minds' eyes. My students were relying on their prior experiences with trees to make inferences about this particular tree. Through analysis of my students' drawings, I realized that I needed to explicitly teach how to separate observation and inference.

Now, as a teacher educator, I realize that I still need to explicitly teach my students how to separate observation and inference. Rather than making observations about trees, however, the prospective teachers in my care are tasked with making observations of classroom interactions. In their early field placements, prospective teachers make observations of the

clinical educators in whose classrooms they are placed. Without teaching them to separate observation and inference, these students, too, tend to rely on their prior experiences in classrooms to make inferences about the particular classroom in which they are placed.

Through this action research inquiry, I examine strategies for helping prospective teachers to separate observation and inference. In particular, I ask, *how can I use certain ethnographic observation tools to help prospective teachers separate observation and inference?*

Study Context. The setting for this action research inquiry was an introductory education course and its accompanying field experience, the pre-requisite courses for admission to a mid-sized teacher education program at a public flagship university in the Mid-Atlantic. The 36 undergraduate students in the course who are the participants in this study ranged from first years to fourth years, from future doctors and investment bankers to future teachers and coaches. Whereas only about a third of my students intended to pursue teaching as a profession, all had previous experiences in K-12 classrooms as K-12 students.

The teacher education program that served as the setting for this action research inquiry relied on a standardized supervision model that incorporates video-recorded teaching episodes to provide teacher preparation grounded in clinical practice. Through this standardized protocol, university supervisors chose video segments and prompted candidates' self-analysis of practice grounded in observation of classroom interactions. The purpose of this model was to facilitate teacher candidates' reflection-in-action (Schön, 1983) to shape patterns of pedagogical practice by zooming in on specific moments in time and supporting the decomposition of practice. Grossman (2011) defined decomposition of practice as "breaking down complex practice into its constituent parts for the purposes of teaching and learning" (pp. 2838-2839).

Research Problem. Researchers have posited that the ability to engage in the decomposition of practice is not something that teacher candidates inherently possess, but instead is a skill that requires mentoring and support (Baecher, McCormack, & Kung, 2014), often provided by university supervisors. Previously, my colleagues and I conducted a text analysis of paired university supervisor's prompts and candidates' responses within the teacher education program under study (McCool, McGraw, Hoffman, 2017). Results of the analysis indicated that candidates tended to make inferences even when they were specifically prompted by their university supervisors to observe their practices (i.e., "What do you see…?"). We concluded that the teacher education program needed to create opportunities for candidates to learn to separate observation and inference. Previous research supports this finding: "specific skills are needed for effective noticing as part of the act of reflection, such as describing rather than judging, and exploring rather than evaluating" (Baecher et al., 2014, p. 1). I propose that one of those specific skills could be ethnographic observation.

Research Question. Through this action research inquiry, I ask, *how can I use certain ethnographic observation tools to help prospective teachers separate observation and inference?* In particular, I explore the ways in which ethnographic observation protocols detailed by Frank (1999)—notetaking/notemaking, classroom mapping, and ethnographic interviews—can be employed by prospective teachers in their first field experience to support separating observation and inference. I anticipate that by explicitly teaching ethnographic

observation tools that facilitate the separation of observation and inference, I will enable the prospective teachers in my care to more objectively notice what is happening during classroom interactions without first drawing conclusions based on their own previous experiences. The literature review that follows elaborates on the ways in which such tools can support classroom observations and the decomposition of practice.

Literature Review

As a result of what Lortie (1975) termed the *apprenticeship of observation*, the average student has spent 13,000 hours observing the work of teachers by the time they graduate from high school. Consequently, prospective teachers observing the work of practicing teachers in early field placements may not realize that they have only seen a partial view of what a teacher does (Borg, 2004). As such, they may tend to base interpretations and critical evaluations on scant evidence and their own experience, rather than on close observation of teachers' words and actions (Frank & Uy, 2004). Mewborn and Tyminski (2006) refer to the process through which novice teachers base their practices on the imitation of their teachers as the cultural transmission of teaching practices. Evidence suggests that teacher educators can disrupt this cultural transmission by helping prospective teachers learn to use the experiences they bring to their preparation "as filters for making sense of the knowledge and experiences they encounter" (Feiman-Nemser, 2001, p. 1016). Engaging teacher candidates in ethnographic observation—listening to the language and observing the actions of the classroom in order to understand teaching from the perspective of the practitioner—has the potential to provide candidates a disciplined way to separate observation and inference, postponing judgments based on too little evidence, and instead relying on collected evidence to form interpretations of classroom practices (Frank & Uy, 2004).

Previous researchers have studied teaching strategies purported to support novice teachers in developing the ability to separate observation from inference as they analyze classroom interactions both on video and in person. I detail such studies in the following sections.

Analyzing Classroom Interactions using Video Observations. Several authors have explored strategies for scaffolding novice teachers' ability to analyze classroom interactions through the use of video-recorded teaching segments (i.e., Baecher & Kung, 2011; Sherin & van Es, 2005; van Es & Sherin, 2002). The ability to notice and interpret classroom interactions is foundational to video analysis. Teachers must learn to identify what is important in a teaching situation, make connections between specific events and broader principles of teaching and learning, and use what they know about their specific teaching context to reason about a given situation (Sherin & van Es, 2005; van Es & Sherin, 2002).

Seeking to support teachers in developing the ability to notice and interpret classroom interactions, van Es and Sherin (2002) designed a software tool, which they dubbed the *Video Analysis Support Tool (VAST)*. Using *VAST*, teachers analyzed a video segment from their own classrooms, using knowledge of their particular context—including students, subject matter, curriculum, and school—to interpret the events they noticed in the video. The results of their randomized control trial led van Es and Sherin to conclude that the teachers who used *VAST* organized their observations around noteworthy events in the video, identified specific

evidence to support the moments they chose to focus on in the video, and engaged in more interpretive analysis in comparison to their colleagues in the control group. All of the teachers in their study, however, tended to evaluate or judge their practice. The authors argued that the goal of video analysis "should not be to immediately focus on whether one has made an effective pedagogical move, but rather to understand how that move responds to students' ideas, the subject matter being discussed, or another issue at hand" (van Es & Sherin, 2002, p. 591). Instead, they suggested that interpretation should come before a teacher's evaluation of a situation and speculated that the teachers who used *VAST* grounded their evaluations in the interpretations that preceded them.

Building on the work of van Es and Sherin, Baecher and Kung (2011) developed a self-paced, online workshop to introduce novice teachers to techniques for observing and analyzing teaching through video. They noted that teaching teachers how to conduct an observation—be it on video or in a real classroom—is a crucial step in this process. Based on their pre- and posttest design results, Baecher and Kung concluded that participants in their study sought specific evidence from the video to support claims. Moreover, the authors observed that one of the main ways participants' responses changed following the workshop was to become more cautious about making judgments. In particular, before the workshop, participants tended to be more declarative and definitive in their analysis (i.e., "The teacher's goals were …"); after the workshop, their language was more cautious (i.e., "It seems that her goal was to …"). Such speculative language is warranted, as the teachers in this study were not watching videos of their own teaching and could only assume the teacher's motives.

In many teacher preparation programs—including the one that serves as the context for this action research inquiry—prospective teachers spend at least one semester observing the work of an experienced teacher in a live classroom context. We miss opportunities for effective noticing and interpretation of classroom interactions unless we teach them how to separate observation from inference prior to the point at which they begin analyzing their own video-recorded lesson enactments.

Analyzing Classroom Interactions using In-Person Observations. In *Ethnography for Teacher Education*, Frank and Uy (2004) made a case for training teacher candidates in the practice of ethnographic observation in order to record talk and action in classrooms without making critical evaluations. In order to conduct such observations, ethnographers enter into social settings—often previously unfamiliar settings—and participate in the daily routines of that setting, developing ongoing relationships and observing what is happening within the setting (Emerson, Fretz, & Shaw, 2011). In *Ethnographic Eyes: A Teacher's Guide to Classroom Observation*, Frank (1999) described how pre-service teachers in school contexts could use the tools of ethnographic observation. In particular, she described notetaking/notemaking—in which pre-service teachers record observations of their field placement sites (notetaking) and make inferences and ask questions based on their observations (notemaking)—as well as classroom mapping and teacher interviews. Virtue (2009) built on the work of Frank (1999) and Frank and Uy (2004) to investigate the impact of an inquiry project designed to prepare middle level pre-service teachers for their work with English language learners. The researcher concluded that integrating ethnographic observation into field experiences helps pre-service

teachers "see beneath the surface of daily life in schools" (Virtue, 2009, p. 16). Furthermore, he emphasized the importance of supplying specific protocols for pre-service teachers to use in the field and allowing them to practice using them in advance. Through this study, I seek to build on Virtue's work by using similar strategies to engage prospective teachers in observing various school-based settings.

Methodology

I used the methodology of action research to explore the ways in which I could support the prospective teachers in my class in separating observation and inference when viewing classroom interactions. Action research is a "disciplined process of inquiry conducted *by* and *for* those taking the action. The primary reason for engaging in action research is to assist the 'actor' in improving and/or refining his or her actions" (Sagor, 2000, para. 1). The action research cycle of plan, act, observe, and reflect (Anderson, Herr, Nihlen, 1994) served as the guiding framework for this inquiry.

In planning my inquiry, I explored previous applications of ethnographic observation in teacher education articulated in the literature. In particular, I relied on Frank's (1999) text, *Ethnographic Eyes: A Teacher's Guide to Classroom Observation*, as the foundation for my plan. To enact my plan, I taught my students three of the ethnographic observation tools detailed in Frank's text: notetaking/notemaking, classroom mapping, and ethnographic interviews. I observed my own practice by analyzing students' ethnographic observation assignments for variations in the ways in which students completed the tasks. Finally, I reflected on how well the prospective teachers in my class were able to separate observation and inference, as evidenced by their ethnographic observation assignments.

Exploring Ethnographic Observation with Prospective Teachers. As an introduction to ethnographic observations, I assigned my students to read about classrooms as cultures (Dixon, Frank, & Green, 1999) for homework. In class, we explored the practice of ethnographic fieldwork as "firsthand participation in some initially unfamiliar social world and the production of written accounts of that world that draw upon such participation" (Emerson et al., 2011, p. 1). We also discussed practicing disciplined subjectivity, which encourages observers to acknowledge personal preconceived ideas and monitor biases (Efron & Ravid, 2013).

Data Collection. Across the semester, university students conducted three ethnographic observations in their field placements associated with a university-based tutoring program in local K-12 classrooms or after school programs based on the activities outlined in *Ethnographic Eyes: A Teacher's Guide to Classroom Observation* (Frank, 1999). The first observation was notetaking/notemaking, in which I instructed students to record observations of their field placement sites, as well as make inferences and ask questions based on their observations. For the second observation, students created maps of their field placement sites and made inferences regarding the teacher's or program's educational philosophy based on the physical environment. For their final observation, students had a choice of conducting a second notetaking/notemaking or interviewing the teacher in whose classroom they were placed. Following each observation, I evaluated students' work using our co-constructed checklists,

provided targeted feedback, and adjusted future classroom activities and assignments based on both individual students' work and general patterns of performance.

Notetaking/Notemaking. Notetaking/Notemaking (Frank, 1999) provides a framework for capturing descriptive fieldnotes, as well as interpretations of their observations, to delineate observations from inferences. We began practicing notetaking/notemaking in our university classroom, first using a still image and then a video of classroom interactions. Following this initial practice, we co-constructed a checklist for students' notetaking/notemaking assignment (see Figure 1). Then students engaged as participant observers in their field placements, concentrating on capturing everything they heard the teacher say and reserving interpretation until they had analyzed their fieldnotes. In their field experience placements, students were to observe for 10 minutes and record their observations under the heading "Notetaking" and their inferences and questions under the heading "Notemaking."

Notetaking/Notemaking Checklist

Name:
Criteria developed collaboratively in class
Notetaking
☐ Uses neutral language; avoids value-laden language
☐ Notes both the group and individuals (ex. facial expressions, body language)
☐ Notes both the "background" and the people
☐ Notes both what teachers say and do and how students respond
Notemaking
☐ Makes inferences based on observations
☐ Asks questions based on observations

Note: 5 out of 6 elements are required for Meets Expectations

Figure 1. Notetaking/Notemaking checklist, co-created with prospective teachers.

Only after prospective teachers had "used quotes from fieldnotes as evidence for their interpretations of what was happening" (Frank & Uy, 2004, p. 269) did we begin to use a common language to name these teacher moves. Using the direct instruction model (Estes, Mintz, & Gunter, 2011), I introduced students to the common language presented in the assessment tool used across the teacher education program: the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008). Because CLASS serves as common language throughout the teacher education program's field experiences, I included elements of that common language at this early stage of the program to support coherence by allowing for the exchange of ideas across different settings, different content areas, and different contexts (McDonald, Kazemi, & Kavanagh, 2013). In particular, we explored how the dimensions within the Emotional Support domain—positive climate, teacher sensitivity, and regard for student perspectives—might manifest in a classroom context, identifying examples of each in an

excerpt from a previously-conducted notetaking/notemaking and a video of classroom interactions. We then discussed how the CLASS language might serve as a frame of reference to temper personal biases and support disciplined subjectivity in observations. Students had the option of including the common language of the CLASS in their second notetaking/notemaking assignment.

Classroom map. To set the stage for the second ethnographic observation—the classroom map—and provide an opportunity for students to draw connections between theory and practice, we first explored the philosophical foundations of American education. For homework, students completed a philosophy of education self-inventory (Ryan & Cooper, 2010). Based on their self-inventories, students identified predominantly with one of the four philosophies outlined by Ryan and Cooper: either the subject-centered philosophies of perennialism or essentialism or the child-centered philosophies of romanticism or progressivism. As we discussed the philosophies in class, I invited students to share how they had experienced each in their own educational background, their field placement, or our current class.

Following this overview of educational philosophies, I introduced the classroom map assignment. For this assignment, I tasked students with creating a visual representation of their field placement classroom and writing a summary paragraph in which they were to draw inferences about the philosophical preference(s) of the teacher or program based on the observable, physical attributes of the space. We considered key elements that they should incorporate in the classroom maps and co-constructed a checklist for evaluation (see Figure 2).

Classroom Map Checklist

Name:
Criteria developed collaboratively in class
Map ☐ Captures "text" of the classroom (e.g., posters, bulletin boards, what's written on the whiteboard, etc.) ☐ Captures the classroom layout (e.g., desk arrangement) ☐ Captures the "stuff" of the classroom (e.g., bins, materials, furniture, etc.) ☐ Legend
Summary Paragraph ☐ Draws ***inferences*** about the philosophical preference(s) of the teacher/program based on the observable, physical attributes of the classroom/space

Note: 4 out of 5 elements are required for Meets Expectations

Figure 2. Classroom map checklist, co-created with prospective teachers.

Interview. For students' third ethnographic observation, students were able to choose whether they wanted to conduct another notetaking/notemaking observation or interview the teacher in whose classroom they were placed. Ideally, every student would have conducted an interview. However, given the nature of their field placements and the fact that few of my students had an opportunity to interact with the teacher when the teacher was not in the middle of instruction, the interview remained a choice. I shared Spradley's (1979) ethnographic interview (i.e., "Could you tell me about what you do …?") and Frank's (1999) grand tour (i.e., "Could you describe a typical day in your classroom?") questions with those prospective teachers who were considering the interview option. We also discussed what elements students should include in their interview write-up and synthesis of the interview experience and developed a checklist for evaluation (see Figure 3).

Interview Checklist

Name:
Criteria developed collaboratively in class
Interview ☐ Records at least three questions asked (ethnographic questions and/or grand tour questions) ☐ Records/paraphrases teacher's responses
Synthesis Paragraph ☐ Explains rationale for questions asked (e.g., I've seen the teacher do ___ and wanted to understand her thinking behind that action.) ☐ Shares insights/inferences made based on interview answers and/or previous observations

Note: 3 out of 4 elements are required for Meets Expectations

Figure 3. Interview checklist, co-created with prospective teachers.

Data Analysis. In order to draw conclusions about how I can use the tools of ethnographic observation to support prospective teachers in separating observation and inference, I analyzed my students' assignments as they practiced ethnographic observation in their field placements using our co-constructed checklists. Whereas I evaluated each student's three ethnographic observations individually for adherence to the articulated criteria, what provided the most insight into my own practice were the variations in ways students completed those observational tasks. In analyzing students' observations to improve my own practice, I relied on the improvement science paradigm, which assumes that variation can be a source of ideas for improvement (Lewis, 2015). As such, this section focuses on the sources of variation in my students' observations.

Results

Notetaking/Notemaking. At the conclusion of her notetaking/notemaking assignment, one of the prospective teachers in my class reflected, "Taking mental notes for this activity really helped me pick up on my surroundings and it further enhanced my experience with [my student]!" She numbered each of her notetaking observations and the corresponding notemaking inferences she drew based on those observations (see Figure 4).

Notetaking	Notemaking
1. [My student] runs towards me and throws her arms tightly around my legs. 2. [My student] turns her back to her teacher and is facing towards me. 3. A boy in a blue shirt has his hands on his face and a teacher is patting his back.	1. [My student] is excited to meet me and gives me a loving hug. 2. [My student] is not paying attention to her teacher and is distracted by me, her new tutor. 3. The boy is upset and the teacher is comforting him.

Figure 4. Excerpt from notetaking/notemaking submission.

As was the case with the previous example, many prospective teachers made discernible observations of their surroundings and inferences based on their observations. For example, in one exemplary assignment, the student directly connected what he noticed in the classroom to the meaning he made of what he noticed (see Figure 5). Moreover, this student articulated questions that would help him accurately interpret his observations and understand the motivations of the participants in the classroom.

Notetaking	Notemaking
-Students are arranged in groups for two for duration of class	The teacher has the classroom set up like this so the students can collaborate and work with a partner easily when necessary.
-Every student has a personal touch screen laptop out	The school district has adopted the 1 to 1 program and a majority of the students' classwork and homework is now online. Do the students enjoy using computers? Is it more effective and do the students retain the information better this way?
-Teacher tells students to be quiet if they want free time at end of class, students quiet down almost immediately	Teacher uses an incentive to quiet the students down and prepare for work. Is this the most effective way? How would the students act without the incentive of free time at the end of class?

Figure 5. Excerpt from exemplary notetaking/notemaking submission.

Some students, on the other hand, interpreted the notetaking portion of the assignment as the quick and raw notes they would jot while they were in the classroom and the notemaking

portion as the more detailed notes they would flesh out after they left their placement (see Figure 6). In this example, the notemaking side of the table includes both observations and inferences; however, the inferences drawn are not directly related to the observations made, which implies that the student made assumptions based on meaning he attributed to his observations.

Notetaking	Notemaking
1) In groups 2) Smart board 3) Not paying attention 4) 3 strikes 5) 1 kid came in late to class 6) Teaching assistant 7)	1) The teacher set up the students in groups depending on where they were with the subject 2) The teacher used the smart board to get the children excited about finishing the problems. She would let them write on the smart board if they got the problem correct and were not disruptive during the exercise. 3) One group was very good at the material and would finish before everyone else. However, they would talk very loudly once they were done and disrupted the other students that were trying to finish.

Figure 6. Excerpt from differently-interpreted notetaking/notemaking submission.

Almost all prospective teachers chose to complete a second notetaking/notemaking observation later in the semester. Of those, 20 opted to label their observations using CLASS language (Pianta et al., 2008), an element of the checklist that I framed as a bonus. As one student reported of her notetaking/notemaking experience, “aside from making simple observations, I learned to notice both the foreground and the background, recognize my personal biases, think about inferences of observations, and incorporate the CLASS dimensions into my notemaking.” For example, in her notemaking she made inferences regarding the teacher’s awareness and responsiveness to students’ academic needs and cues:

> Overall, with this game, the teacher demonstrates teacher sensitivity. He is collecting information on which students know the material, and which are struggling. This way, he can anticipate problems and change his lesson plans for the future to target certain topics, or certain students, for further instruction.

Classroom map. In the classroom map assignment, most prospective teachers made clear inferences regarding the teacher’s or program’s philosophy based on the layout and contents of the classroom (see Figure 7). For example, in her paragraph summarizing her map, one student reported:

> The layout of the desks and the abundant blank space on the walls are the primary things that leads [*sic*] me to believe that [the teacher] follows a subject-centered educational philosophy. The fact that the desks are organized in rows, facing the board, where the subject material is delivered, focuses the students' attention on that material alone, and not the other students around them, or the posters behind them…. The philosophy implied by the environment borrows from both perennialism and essentialism. The class has goals (as depicted on whiteboard B) to learn certain "essential" elements, and the teacher wants them to learn the "changeless truths" that encompass the vocabulary, graphs, formulas, and properties that are focused on on [*sic*] the poster at the front of the room.

In her summary, this prospective teacher made references to the layout and text of the classroom as well as key elements of the educational philosophies discussed in class.

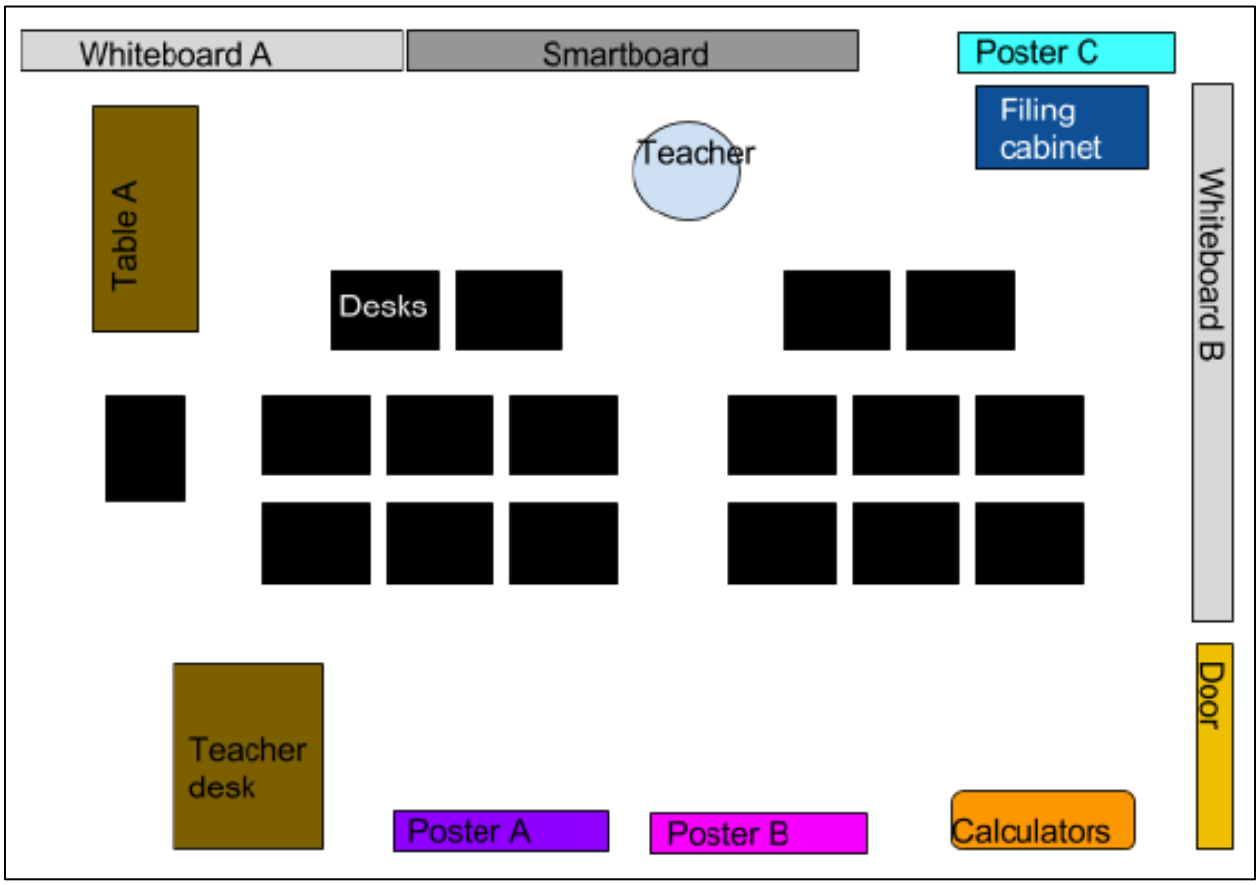

Figure 7. Classroom map submission.

In contrast, another student referenced the teacher's philosophy but did not name it using any of the four labels presented in class. He reported:

> [The teacher's] decorating choices show that she is trying to connect the material being taught to the real world, and make learning fun. She's giving them artistic inspiration to

> make the classroom feel like an immersive environment. Her philosophy is that the classroom environment shapes learning outcomes. [The teacher] also has a poster in her room above the whiteboard on the right side that says "Voice Levels: 1, 2, 3, 4, 5, and 6." 6 Is [sic] the loudest and 1 is the quietest. [The teacher] believes that she can use her poster to influence her students' behavior [sic]. [The teacher] is of the philosophy that discipline in the classroom is important, and she uses creative methods to keep the class under control.

While not inherently incorrect, this student did not make a direct link between the philosophies discussed in class and the choices made by the classroom teacher.

Yet another student expressed concern with the classroom mapping assignment, as he spent most of his field experience tutoring one student in the hall outside the classroom. He reported:

> Since I was mostly tutoring one student, the classroom itself was not reflective of the environment in which we studied because I took the student out to the hall for extra tutoring. Instead, the Classroom Map activity was modified to accommodate for the type of study the student was expected to complete in the forms of worksheets and Standards of Learning (SOL) practice papers.

Instead of a map, this prospective teacher submitted copies of the worksheets that his assigned student was working on that were annotated with his interpretation of their philosophical bent (see Figure 8).

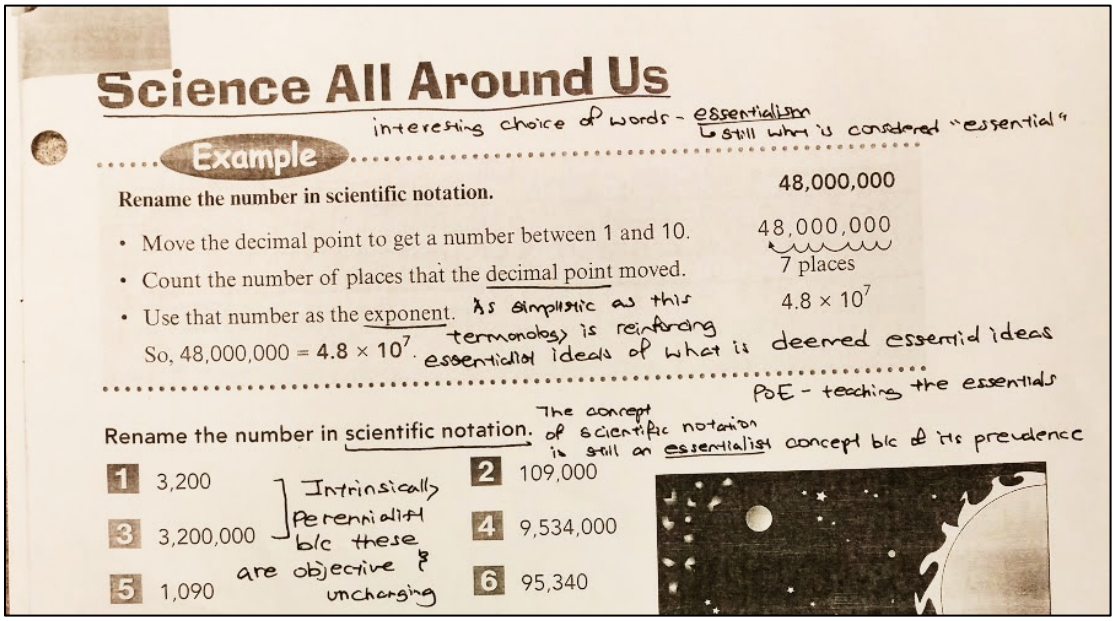

Figure 8. Modified classroom map submission.

Interview. Even though more of my students expressed an interest in conducting an interview, only one student completed this option. In a subsequent reflection, he shared:

> Throughout the teaching experience, I noticed some directed behaviors from the teacher to the student that I tutored that were not reflective of a conducive learning environment. Even just outside of the student that I tutored, there were instances where the teacher was perceivably unable to or unwilling to accommodate for the fragility of the students within her classroom.

Based on his experiences and interactions with the teacher in his field placement—particularly one in which he reported that "the teacher indirectly called the student 'stupid'"—he was "very weary of the teacher's motives, intents, and demeanor." He commented that although he was able to maintain a professional relationship with the teacher, it became difficult for him to perceive her without a subjective lens. However, after conducting the interview, he reflected:

> If anything, the interview cleared a lot of the confusion surrounding the classroom and helped elucidate a lot of the problems. More importantly however, the interview solidified the reality of the issues that we talked about throughout the semester for the educational system and for teachers which was really insightful in my comprehension of theory relating to practice.

He also shared with me that he would suggest making the ethnographic interview a mandatory assignment based on what he learned from the experience.

Discussion

I engaged in this action research inquiry to answer the question: *how can I use certain ethnographic observation tools to help prospective teachers separate observation and inference?* In answering this question, I found that observing variation in the students' responses using an improvement science paradigm (Lewis, 2015) provided insight into my own practice.

For many of the prospective teachers in this introductory education class, conducting ethnographic observations supported their observational processes by helping them view classroom interactions with disciplined subjectivity, allowing them to distinguish between observations and inferences. Those who delineated and made connections between their observations and inferences were able to use their apprenticeship of observation and prior personal experiences in classrooms as filters for their observations rather than drawing conclusions based solely on their previous classroom experiences as students. However, upon reflecting on the ethnographic observations submitted by all of the prospective teachers in my class, I realize that I could provide additional supports that would enable them to develop the skills necessary to detangle their prior experiences from their current observations.

Notetaking/Notemaking. Due to the persistent misinterpretation of notetaking as the place to jot quick notes and notemaking as the place to add details to those quick notes, in the future I plan to change the name of this assignment. Although I enjoy the alliterative quality of notetaking/notemaking, the title did not provide the clarity necessary to facilitate the

separation of observations and inferences. Instead, I would adjust the assignment to Observations/Inferences & Questions and label the template to correspond with those two categories.

Additionally, I would further clarify the need to separate observations from inferences by introducing students to the ladder of inference. According to the model proposed by an organizational psychologist:

> The environment in which we operate is significantly more complex than what the human mind can process at a given moment. In order for the human mind to deal with reality, we must abstract from the buzzing confusion of everyday life … by using more abstract concepts. (Argyris, 1982, p. 12)

As such, our minds tend to begin with relatively directly observable data and then impose culturally understood meanings to those observations, moving us up the ladder of inference. Such culturally understood meanings can be particularly problematic because the K-12 schools the prospective teachers had attended were generally quite different from their field experience schools. Introducing prospective teachers to the process of moving up the ladder of inference, perhaps through the TED-Ed video *Rethinking Thinking* (Maber, 2012), could help bring awareness to this generally unconscious tendency.

With respect to the second notetaking/notemaking assignment, in which prospective teachers had the option of incorporating the common language of the CLASS into their observations, I would also make some adjustments for future practice. First, rather than introducing CLASS language in a deductive manner using the direct instruction model (Estes et al., 2011), I would like to try an inductive approach. I would invite my students to examine the Observations/Inferences & Questions submissions from earlier in the semester to identify what they would consider to be effective teacher-student interactions. Once they had brainstormed a list of effective practices, I would introduce the CLASS and the domains and dimensions that map onto the identified practices. After building to this common language used across the teacher education program, I would then make incorporation of CLASS language a requirement rather than an optional element of the second Observations/Inferences & Questions checklist.

Classroom Map. The classroom map assignment generally provided a forum in which prospective teachers were able to link theory with practice and make connections between the educational philosophies we discussed in class and the physical elements of their field placement environments. However, explicit reference to the specific educational philosophies highlighted in class within the rubric might have supported more students in making the connection between the coursework and their field placement. In particular, I would shift the language in the rubric to “Draws inferences about the philosophical preference(s) (i.e., perennialism, essentialism, romanticism, progressivism) of the teacher/program based on the observable, physical attributes of the classroom/space.”

Interview. For the prospective teacher who completed this assignment, the interview served as a turning point in his understanding, not only of the larger educational system in which teachers operate, but also the motivations of the teacher in whose classroom he was placed. While I recognize that the nature of some early field placements does not lend itself to in-depth interviews of the teacher, in future iterations I would frame the interview as the preferred third ethnographic assignment, but allow prospective teachers to advocate for a second Observations/Inferences & Questions if an interview is not feasible.

Conclusion

This action research inquiry sheds light on one instructor's experience with engaging prospective teachers in ethnographic observation during an early field experience in order to separate observation from inference. Furthermore, this inquiry draws on evidence from Frank and Uy's (2004) investigation of the use of ethnographic observation methods by prospective teachers to inform my practice as a teacher educator. Through this action research inquiry, I engaged in a process of professional growth and development, critically reflecting on my practice, and learning from my experience to support program development (Holly, Arhar, & Kasten, 2005). As I work to improve my practice, I also hope to support the future teachers in my care to become objective observers of teaching practices. Moreover, by providing prospective teachers the observational tools that will support separating observation and inference, I hope to support them in objectively observing what they say and do in selected video clips of their future teaching.

About the Author

Meredith McCool, Ed.D. is an assistant professor and the Director of the Education Program at Sweet Briar College in Virginia. She teaches courses in curriculum, instruction, and assessment; culturally responsive and restorative practices; place-based pedagogy; and action research to both undergraduate and graduate pre-service teachers. Her research interests lie at the intersection of teacher education, place-based education, and rural education. Email: mmccool@sbc.edu

---

References

Anderson, G. L., Herr, K., & Nihlen, A, S. (1994). Studying your own school: An educator's guide to qualitative practitioner research. Thousand Oaks, CA: Corwin.

Argyris, C. (1982). The executive mind and double-loop learning. Organizational Dynamics, 11(2), 2-22.

Baecher, L. & Kung, S. C. (2011). Jumpstarting novice teachers' ability to analyze classroom video: Affordances of an online workshop. Journal of Digital Learning in Teacher Education, 28, 16-26.

Baecher, L., McCormack, B., & Kung, S. C. (2014). Supervisor use of video as a tool in teacher reflection. TESL-EJ, 18(3), 1-16.

Borg, M. (2004). The apprenticeship of observation. ELT Journal, 58, 274-276.

Dixon, C. N., Frank, C. R., & Green, J. L. (1999). Classrooms as cultures: Understanding the constructed nature of life in classrooms. Primary Voices K-6, 7(3), 4-8.

Efron, S. E. & Ravid, R. (2013). Action research in education: A practical Guide. New York, NY: The Guilford Press.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). Writing Ethnographic Fieldnotes (2nd ed.). Chicago, IL: The University of Chicago Press.

Estes, T. H., Mintz, S. L., & Gunter, M. A. (2011). Instruction: A models approach (6th ed.). Boston, MA: Pearson.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. Teachers College Record, 103, 1013-1055.

Frank, C. (1999). Ethnographic eyes: A teacher's guide to classroom observation. Portsmouth, NH: Heinemann.

Frank, C. R. & Uy, F. L. (2004). Ethnography for Teacher Education. Journal of Teacher Education, 55, 269-283.

Grossman, P. (2011). Framework for teaching practice: A brief history of an idea. Teachers College Record, 113, 2836-2843.

Holly, M. L., Arhar, J., & Kasten, W. (2005). Action research for teachers: Traveling the yellow brick road (2nd ed.). Upper Saddle River, NJ: Pearson.

Lewis, C. (2015). What is improvement science? Do we need it in education? Educational Researcher, 44, 54-61.

Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago, IL: University of Chicago Press.

Maber, T. (2012, October 15). Rethinking thinking [Video file]. Retrieved from https://ed.ted.com/lessons/rethinking-thinking-trevor-maber#review

McCool, M., McGraw, J., & Hoffman, A. (2017, March). Detangling nuance and fidelity: Text analysis of university supervisors' prompts and teacher candidates' responses to a video-based protocol. Presented at the American Association of Colleges for Teacher Education annual meeting, Tampa, FL.

McDonald, M., Kazemi, E., & Kavanah, S. S. (2013). Core practices and pedagogies of teacher education: A call for a common language and collective activity. Journal of Teacher Education, 64, 378-386.

Mewborn, D. S. & Tyminski, A. M. (2006). Lortie's apprenticeship of observation revisited. For the Learning of Mathematics, 26(3), 30-32.

Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2008). Classroom Assessment Scoring System. Baltimore, MD: Paul H. Brookes.

Ryan, K. & Cooper, J. M. (2010). Those who can, teach (10th ed.). Boston, MA: Wadsworth/Cengage Learning.

Sagor, R. (2000). Chapter 1: What is action research. Guiding school improvement with action research. Retrieved from http://www.ascd.org/publications/books/100047/chapters/What-Is-Action-Research%C2%A2.aspx

Schön, D. A. (1983). The reflective practitioner: How professionals think in action. New York, NY: Basic Books.

Sherin, M. G. & van Es, E. A. (2004). Using video to support teachers' ability to notice classroom interactions. Journal of Technology and Teacher Education, 13, 475-491.

Spradley, J. P. (1979). The ethnographic interview. New York, NY: Harcourt Brace Jovanovich.

van Es, E. A. & Sherin, M. G. (2002). Learning to notice: Scaffolding new teachers' interpretations of classroom interactions. Journal of Technology and Teacher Education, 10, 571-596.

Virtue, D. C. (2009). Using "ESOL rounds" to prepare middle level candidates for work with English language learners. Middle Grades Research Journal, 4(1), 1-24.