

Examining the Apprenticeship of Observation with Preservice Teachers: The Practice of Blogging to Facilitate Autobiographical Reflection and Critique

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Introduction and Purpose

One of the goals of successful teacher preparation is to develop professionals who are cognizant of their own backgrounds and who critically reflect on those experiences for future practice (Darling-Hammond, 2006). Overall, this study seeks to explore the ways in which blogging provides a space for reflection, interaction, and development of teacher practice within a teacher education program. Building upon the previous work with in-service teachers of Luehmann (2008), we examined preservice teacher (PST) participation in an online community of practice where teacher candidates, over the course of their elementary education program, reflect on their own educational backgrounds and mediate those ideas with course readings and exposure to a variety of pedagogical practices. Preservice teachers took these various components and spoke in terms of either

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mixing past experience and present exposure, retaining the qualities of each, or of deconstructing their prior experience as they assembled plans for the future. For this article, we focused on the autobiographical experiences of the PSTs to answer the following research questions:

How does autobiographical reflection through blogging provide a space for students to recognize their apprenticeship of observation?

In what ways do PSTs negotiate these apprenticeships of observation?

Theoretical Framework

This work is primarily situated in the theory of the “apprenticeship of observation,” which originated with Dan Lortie’s (1975) identification of the period of time which students spend as observers in schools before they begin, if they choose, formal teacher education. Students spend thousands of hours developing perceptions of teaching and teachers and thus harbor deep-seated notions on the nature of academic content, the structure of pedagogy, and what constitutes teaching practice. Wideen, Mayer-Smith, and Moon (1998) conclude “teaching itself is seen by beginning teachers as the simple and rather mechanical transfer of information” (p. 143). The apprenticeship and its ensuing inscriptions are troublesome to teacher educators (Darling-Hammond, 2006) who seek to provide a theoretical knowledge base for PSTs and foster nontraditional perspectives (Feiman-Nemser, 1983). Whereas Lortie’s (1975) conception of the notion frames the apprenticeship largely as a negative influence which teacher educators should seek to mediate, other scholars (Mewborn & Tyminski, 2006) have suggested that the autobiographical memories of students should be solicited for exploration and sometimes affirmation.

Teacher educators once took for granted the schooling experiences of their students in teacher education and thus highly emphasized additive coursework, but there has recently been a shift toward theorizing on the need to engage students in autobiographical work that has become tantamount in teacher education (Cochran-Smith, 1995; Vavrus, 2009; Wilson, 1990). The necessity for acknowledgement of the background of teachers ranges from reasons such as having the large population of PSTs, who are white, middle class women (Avery & Walker, 1993; Banks & McGee Banks, 2009; Beynon & Toohey, 1995), realize their own ideological norms and values because their views are limited in scope (Gomez, 1994; Ladson-Billings, 1999; Paine 1989) to having PSTs deconstruct and analyze their images of effective and ineffective pedagogy in order to build upon their pre-existing beliefs (Calderhead & Robson, 1991; Feiman-Nemser & Buchmann, 1983). While these studies focus on having PSTs examine their backgrounds in order to uncover assumed ideological beliefs in reference to issues of diversity and are a critical element in teacher education, examining the apprenticeship of observation has a somewhat different goal in that it asks PSTs to think specifically about their schooling experiences in reference to teachers’ practice.

Review of the Literature

Examining Autobiography and the Apprenticeship of Observation

Feiman-Nemser (1983) asserts “unless future teachers get some cognitive control over prior school experiences, it may influence their teaching unconsciously and contribute to the perpetuation of conservative school practices” (p. 11). Thus, researchers have recognized the need to create a space for PSTs to explore the experiences they bring to their current context. A variety of studies have asked students to reflect either on their autobiography or have explicitly named the apprenticeship of observation. For instance, Ross (1987), LeCompte and Ginsburg (1987) and Ziechner, Tabachnick, and Densmore (1987) conducted studies in which students were asked to describe positive and negative memories of teachers. Researchers have also reported on discipline-specific inquiry with autobiography, such as Harkness, Ambrosio, and Morrone (2007) who used mathematical autobiographies that students were required to write early in their semester as a point for comparison to additional reflection the students completed at the end of the methods course. Their findings in the initial narratives mirrored Lortie’s (1975) categories, as PSTs equated their feelings about math to particular teachers. The final reflective pieces disclosed that students had gained an understanding of the “why” (p. 12) of mathematics, hence they had learned to think beyond initial perspectives as students and in the role of teacher. Their responses illuminated their growth throughout the semester and demonstrated how they had come to see math from a new viewpoint.

More specifically, Grossman (1991) expresses the need to engage students in exercises that explicitly recognize the apprenticeship of observation and even attempt to overcome it. In her study, she asks:

How can these deeply ingrained lessons from the apprenticeship of observation be challenged? In the brief allotment for professional coursework, how can these much maligned teacher education courses attempt to develop habits of reflection among prospective teachers and inculcate innovative practices towards teaching? (p. 345)

In an effort to address these questions, she describes the teaching practice in one English methods course in which students’ past experiences were directly called into question and listed, and the instructor challenged students to match these with the theoretical frameworks proposed in the course. Through this engagement, the instructor prompted students to critique familiar practices. In addition, Grossman relates (1991) how the teacher educator in her study invited his students to consider his own pedagogical decisions, to think about their experiences from perspectives of students different from themselves, and to become adept at using the professional language of teaching so as to socialize students in a professional discourse rather than that of a student. Building upon Lortie (1975), Grossman (1991) suggests “overcorrection” or “providing extreme examples of innovative practices (p.350) in hopes that students would at least revert to middle ground when in traditional

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schools. In observations of the PSTs after they had begun their careers, the researcher reported seeing effects of this type of instruction.

As Grossman (1991) illustrates, the apprenticeship of observation can be challenged, despite its supposed intense effects on PSTs. An opportunity exists in teacher education to recognize the autobiographical experiences of students and to mediate them, in some fashion, with coursework and experiences. Therefore, the question explored in this study, based on the theory of the apprenticeship of observation, examines how PSTs' autobiographic schooling experiences are mediated by current academic experiences and planning for future practice. We attempted to create a space, through the platform of blogs, for students to directly reflect on their apprenticeship of observation. We relied on this information in class as the basis for students to learn new methods and re-conceptualize what constitutes effective pedagogical practices in a social context. The combination of blogging with classroom interaction allowed for a community to develop amongst students undergoing a similar process.

Teacher Beliefs and Pedagogical Practice

Researchers (Calderhead & Robson, 1991; Holt-Reynolds, 1992; McDaniel, 1991; Nesbit Vacc & Bright, 1999) have documented the impact that beliefs based on prior experience can have on preservice and beginning teachers' ideas on teaching and their implementation of practices. For example, Holt-Reynolds (1992) reports how "lay theories" which "preservice teachers do not consciously learn . . . at an announced, recognized moment from a formal teaching/learning episode" (p. 326) exceedingly sway how students react to new knowledge presented in teacher education courses. In this study, the researcher relies on interview data collected from nine preservice students to examine their justifications for disagreement with their education professor's methods for instruction. It is perhaps not surprising that their basis of rejection of pedagogical strategies comes from their own educational backgrounds. For instance, Holt-Reynolds (1992) writes that although the course instructor "repeatedly questioned the value of teacher-telling—of lectures—as instructional tools for fostering student growth" (p. 330), the students still felt, "lecturing had helped them learn math; therefore, they saw lecturing as an inherent, necessary feature of good instruction in math" (p. 334-335). Furthermore, students in the study used their autobiographies "as prototypes upon which to build a generalized premise" (p. 339). Because a strategy had worked for them in the past, they felt it would apply to others. Thus, when their instructor presented strategies that did not correspond to their deeply held beliefs, they questioned the method, not "the validity of their own previously constructed premises" (p. 339). Holt-Reynolds (1992) provides detailed analysis of the myriad ways that the students' frame their dismissals of student-centered learning and the defenses they provide for their planned use of lecturing. This research illustrates the power that PSTs' previous experiences can exert on their future practice. Teacher educators must engage in

practices specifically designed to call forth these past encounters in order to build on or challenge them.

Similarly highlighting the potential limitations of experience, Feiman-Nemser and Buchmann (1983) illuminate the “familiarity pitfall” which “stems from the tendency to trust what is most memorable in personal experience” (p. 10) through the portrayal of a preservice student’s engagement in an elementary school context. They write, “past experience helps in making sense of spelling lists and reading groups. . . familiarity with these classroom practices gives . . . a feeling of competence” (p. 8). Without having actually engaged in acquiring pedagogical knowledge, aspiring teachers may thus feel they already possess what they need to know. Researchers (McDaniel, 1991; Weinstein, 1990) have found the foundations upon which PSTs construct their ideas are steadfast; McDaniel (1991) reports that neither course material nor fieldwork affected former sentiments. Their conclusions illustrate the need for teacher educators seeking to foster constructivist views of learning to first disentangle students’ beliefs from naturalized assumptions and to provide critical tools with which to assess them and relearn new methods.

The need for teacher education programs to become a site of inquiry into what students have lived and observed is based on the strong connection between teacher beliefs and practice (Fang, 1996). Building upon the work of Clark and Peterson (1986) who examine teachers’ theories and beliefs, research in discipline-specific studies has shown how beliefs affect choices made for student learning and behavior. For instance, in the field of reading and literacy, Konopak, Wilson, and Readence (1994) found that teachers’ beliefs about reading models directly correlated with their choices for lesson implementation. Fang (1996) explains the usefulness of “process tracing” as a method to investigate these cognitive connections, in which a “teacher is asked to verbalize his/her thoughts while actually doing an instructional task” (p. 57). He also highlights the use of narrative studies to gain a glimpse at teachers’ knowledge and thinking, which relates to the use of blogs in the preservice context to provide a platform for a way of communicating teacher candidates’ dispositions before they reach the classroom setting.

Reflective Blogging in Teacher Education

Reflection as an activity in teacher education is not uniquely defined in the literature, yet there are some common characteristics of what constitutes reflection. The justifications for including reflection range from reasons such as recognizing ideological norms (Paine 1989) to deconstructing images of pedagogy (Calderhead & Robson, 1991; Feiman-Nemser & Buchmann, 1989). Researchers and teacher educators who select blogging as a format for reflection often do so with the supposition that blogging will lead to better reflection from pre-service teachers (Killeavy & Moloney, 2010; Stiler & Philleo, 2003; Yang, 2009). Thus, there are various degrees of reflection, where some are considered deeper or more critical rather than merely descriptive. Yang (2009) reveals this sentiment, with characteristics of critical

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reflection including problematizing, looking for alternative solutions, recognizing personal growth, providing justifications and identifying contradictions between theory and practice (p. 21).

Blogging as a pedagogical tool is effective for numerous reasons. Blogs provide a space for PSTs who are involved in similar experiences to engage in community building and trust formation by sharing and discussing (Yang, 2009). Stiler and Philleo (2003) found that peer feedback through blogs focused on personal and professional dilemmas encouraged learning and confidence. In the studies in which instructors and researchers facilitated reflection through blogging, they offered differing amounts and types of support to students, which may have contributed to varying results. Some studies showed a great degree of critical or deep reflective practice emerging through the use of blogs (Hmriack, Boulton, & Irwin, 2009), yet others cited a lack of reflection in blog entries (Killeavy & Moloney, 2010). In Yang's (2009) study, instructors intervened when they were not satisfied with the level of critical reflection present in the blog postings by asking questions via comments on students' blogs and by writing posts in which they reflected critically on their own instruction. After the interventions by the instructors, the percentage of students engaging in critical reflection increased from 19% to 40%. The authors in this study suggest that blogs create an interactive dynamic environment in which instructors can provoke reflection and that this feedback happens perhaps more easily and consistently in blogs than through other avenues. Though Stiler and Philleo (2003) conclude that students' blog reflections were more analytical and evaluative than reflections from students from previous semesters who turned in written reflections, their claims are only verified anecdotally. The current research on blogs as tools for reflection suggests that factors such as level of preparation or training for reflection and the degree of instructor interaction may strongly contribute to the effectiveness of blogs. Blogging does emerge as a potentially powerful tool for enhancing reflective practice among PSTs.

The need for reflection is thus apparent in the literature, although there are myriad ways to encourage reflection. Our study specifically focuses on reflection on personal experiences, thus asking students to bring to the forefront their autobiography and consider it in a way in which they have not previously. Course instructors used entries and conversations that occurred within the blogs as content for discussion and investigation in the methods class. Thus the affordance of the blogs to allow for a richer course experience truly built on students' backgrounds was invaluable. Instructors were allowed to see students' beliefs based on prior experiences, their connections or rejections of new material to these previous encounters, and bring them into the classroom in an authentic manner. Closely related to the engagement in autobiographical work then, is the negotiation of a nascent teacher identity. As teachers begin this thoughtful work on their own backgrounds and transition from the role of student to teacher, they take on different perspectives and imagine new spaces of interaction.

Blogging as a Means to Develop Teacher Identity

Researchers have currently begun to examine how the use of blogging can afford a lens into the development of professional teacher identity. Scholars in this field similarly define professional teacher identity. Researchers have acknowledged and credited James Paul Gee's (2001) and Gee, Allen, and Clinton's (2001) definition of identity as the foundation for their definitions of professional teacher identity (Luehmann, 2007, 2008; Luemann & Tinelli, 2008; Sutherland, Howard, & Markauskait, 2010).

Building from Gee's (2001) definition of identity, Luehmann (2007) defined teacher professional identity as "being recognized by self or others as a certain kind of teacher" (p. 827). In *Using Blogging in Support of Teacher Professional Identity Development*, Luehmann (2008) argued that it is no longer sufficient for teacher education researchers and programs to limit their focus on knowledge and skills gained through teacher education. Rather, scholars should also facilitate and investigate the professional teacher identity of burgeoning pedagogues. This is especially crucial in order for teachers to meet to the challenges of current schooling problems and to engage in promising reform efforts. Traditional professional teacher identities accept historical schooling maladies and perpetuate ineffective, linear, and failed pedagogies. New professional teacher identities, within which PSTs embrace change and become confident problem-solvers, must develop within teacher education programs that provide supportive social networks and communities of practice for these identities to form. Preservice teachers must have the opportunities to explore, interpret, recognize, and engage in the values, beliefs, practices and discourses of a new professional teacher identity. Throughout this work, Luehmann (2008) illustrated that blogging can be used to support the development of new professional teacher identities. Luehmann framed her analysis according to Darling-Hammond and Hammerness' (2005) empirically-grounded, research-supported practices that effectively improved teacher learning. The practices recommended by Darling-Hammond and Hammerness (2005), and employed by Luehmann (2008) in her analysis of teacher blogging, include an "Awareness and consideration of personal educational autobiography" (Luehmann, 2008, pp. 295.)

Storytelling and narration are identified as inherent aspects of blogging practice, and identity is shaped in the narrative (Luehmann, 2007, 2008; Luemann & Tinelli, 2008; Sutherland, Howard, & Markauskait, 2010). Citing Gee (2001), Sutherland, Howard, & Markauskait (2010) defined professional identity as a "person narrativization of what consists of his or her (never fully formed or always potentially changing) core identity as a teacher" (p. 455). In addition to the creation of stories, narratives, autobiographies, and biographies, both critical reflection and community context are considered to be vital components of blogging that impact the development of new professional teacher identities and PSTs' understandings of these developing identities (Luehmann, 2007, 2008; Luemann & Tinelli, 2008; Sutherland, Howard, & Markauskait, 2010).

Study Context

Participants in this study were 31 senior elementary education majors at a large southeastern research university in the United States. During the fall semester students took methods courses in literacy, science, mathematics, exceptional children, and language minorities. Their spring was spent student teaching. In a concerted effort to integrate literacy and science, the methods instructors for these two areas asked students to blog regularly in their courses and practicum experiences. While sometimes students were given prompts to respond to, such as on their personal educational experiences, generally students composed entries that were related to the courses or student teaching experiences. In particular, there were two specific autobiographical prompts; one solicited their memories of science-related encounters within and outside of the schooling context and the other was a similarly focused literacy reflection. The blogs and the entries we analyze for this paper were thus a central part of the original course designs, but we examine them here for research purposes.

Data Analysis

Data were collected from three primary sources: PST blog entries, comments on the blogs, and interviews with PSTs about their blogging. Researchers examined 1120 blog entries, 2240 comments, and transcripts of eight hours of two interviews. Blog content and interview transcript data were coded using grounded theory with a constant comparative method (Strauss & Corbin, 1998). Data analysis was an iterative and inductive process. In analyzing the blogs, we developed and used a list of codes that came from emergent open coding. Five members of the research team, including faculty researchers and doctoral students, independently reviewed five blogs and coded the responses. The team then came together to compare and condense codes list and final definitions were created. Raters then independently coded five more blogs from the defined code list looking for features that were present in the blogs but absent from the code list. Coding results were compared a second time and a final formal description was developed for the codes that had a high level of agreement. Discrepancies were discussed until consensus was reached. Once the common codes were identified, a third set of five blogs were coded and an inter-rater reliability of $r=0.90$ was established. Data was triangulated across blogs, interviews and comments in order to increase trustworthiness and validate the findings of this study (Lincoln & Guba, 1985). We established nine primary codes from the data (for a full list of primary codes and definitions, see Appendix).

For the purpose of this article, we focused primarily on the responses that we coded as autobiographical experiences. These narratives often reflected the PSTs own schooling experiences and frequently made connections to current pedagogical observations and encounters, thus either reinforcing or disrupting the apprentice-

ship of observation. Overall, four categories of responses to the apprenticeship of observation emerged from the analysis of these autobiographical reflections and are described below (see Table 1).

Results

As categories emerged in data analysis, we found that the first three types of responses, functional, evaluative, and affective, composing approximately 39%, 23%, and 28% of the total responses respectively, aligned with Lortie's (1975) findings on the apprenticeship of observation. Within these, students reported on school practices without an analytical lens, thus perpetuating the notion that students "are not privy to the teacher's private intentions and personal reflections on classroom events" (Lortie, 1975, p. 62). In essence, PSTs have not yet thought as teachers, but rather only as students. However, our fourth category, the remaining

Table 1
Sub-Codes and Definitions

Code category	Definition of code	Example
Primary Code: Personal Education / Autobiography	Student references own schooling experiences or own cultural background.	
Sub-Code Categories		
Functional	Names schooling procedures through a normalized discourse.	"I completely understand the skills based approach. . . It is what I experienced in elementary school"
Evaluative	Moves beyond description and references the practice as positive or negative.	"I remember being disappointed upon entering school, because it seemed like there was not quite the place for science that I had hoped"
Affective	Expresses an emotional connection.	"I have no doubt that I am the impassioned reader I am because of Mrs. Graham"
Disrupted	Proposes a critique or considers a new perspective.	"I have now come to see that science is not just something that happens all around us. Science is meaningless without people, their problems, their motives"

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10% of disrupted responses, serves to challenge and extend Lortie's (1975) research. Here we found the blogs were a mechanism for bringing to light the naturalized assumptions of PSTs and thus a place to reflect and critique them. We describe each of these findings in depth in the following sections.

Functional Responses

In our analysis of the data, we found that 39% of students' reflections frequently described the functional aspect of schooling. Participants treated procedures in school as rational ways to conduct affairs. In these responses, PSTs accepted and often welcomed traditional approaches toward traditional outcomes. Thus, there was a tendency for students not to question or contradict teacher practices; within the recollections, outstanding institutionalized themes included pedagogical choices and discipline methods, as well as assessment strategies. Participants described the practices of schooling through a normalized discourse, with little analysis of the goal or effect the practice may have been intended to achieve. Instead, the purposes appeared simplistically transparent to the student.

Students took for granted pedagogical decisions and reported them as merely the way things were. For example, one PST, Meredith, writes:

I completely understand the skills based approach without even having to read the example classroom in detail. It is what I experienced in elementary school and what I see every Wednesday in my placement. The students move from center to center...

Teaching techniques, such as centers, are treated as experiences that are valid and perceived as axiomatic. There is no inquiry into the origin of the method, its potential benefits or limitations, or how the teacher reached the choice to include it. Describing her work with PSTs to examine pedagogical methods, Wilson (1990) writes, "a closer examination of how they talk about these activities reveals that they see them as pleasant methods to make the business of learning more palatable, not as methods that reflect different assumptions about how and why learning takes place, what is to be learned, and what role the teacher plays in the enterprise" (p. 4). The students in our study reflect a similar disposition.

Lortie (1975) reports similar findings, stating, "what students learn about teaching, then, is intuitive and imitative rather than explicit and analytical" (p. 62) and that students "will not perceive the teacher as someone making choices among teaching strategies" (p. 63). In conjunction with Lortie's observations, the students' responses categorized as functional were the most basic, procedural reports of schooling. For instance, Amy reports, "I noticed in my own Science autobiography and in some of the others that many science teachers rely on copying definitions and answering textbook questions as a way of teaching science."

In regard to pedagogical methods, what students remember as having been effective in their apprenticeship of observation is often considered worthwhile practice.

They indicate their own preference for these pedagogies and imply that they will incorporate them into their own future practice, with no justification other than from experience. As Lortie (1975) writes, these choices do “not represent acquisition of the occupation’s technical knowledge. It is more a matter of imitation, which, being generalized across individuals, becomes tradition” (p. 63). Meredith’s statement is a prime example of this finding, “I also think that dialogue journals are very powerful; my third grade teacher used these and I remember being thrilled every time I received a message from her.” Similarly, Beth recounts, “Thinking back to when I was in school, I always learned a lot through conferencing and editing my own writing. I agree that authentic texts and experiences will help our students learn.” Here, the PSTs communicate experiences from their own schooling autobiography, which they deem valuable because of their impact on them as young children, rather than for their value as pedagogical practices.

Additionally, students rationalize schooling practices especially related to discipline issues. This is revealed in Sarah’s recollection:

I always remember doing read alouds until 6th or 7th grade. In 7th grade our teacher read us an Agatha Christy mystery as we would come in the room and unpack for English. It made a lot of sense because we came in quickly and quietly in order to hear the story...

As seen in this response, the teacher’s practice was heralded as making “sense” if it maintained order. A further demonstration of this aspect is seen in Kim’s reflection, “In my experience as a student, the teachers who had the most controlled classes were the teachers who supported positive behavior. The teachers who supported positive behavior created environments that made the students feel comfortable and welcome.” Again, discipline procedures are regarded as logical means to an end, and teachers’ maintenance of “order” and control are accepted as standard and ultimately, desired. In addition to the acceptance of pedagogical choices and discipline strategies, students assented to evaluative methods as well, reporting corrective measures without contradiction. Mary asserts, “I have been corrected by teachers throughout the years.” And Katherine writes, “Being from a small country town, I have a fairly strong accent at times and growing up was often corrected.” These responses present the job of a teacher as the figure to ‘correct’ a student, even if this extends into one’s own characteristics, such as personal language style, and is received as benign.

Evaluative Responses

Statements classified as evaluative move beyond mere description or acceptance of school practice and comment on the nature of what occurred. We coded 23% of our data in this group. Many students also alluded to either including or excluding the method they observed as students into their own future practice as teachers based upon their positive or negative experiences. Lortie (1975) offers a

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parallel sentiment, finding that PSTs “place events which preceded their formal preparation for teaching within a continuous rather than a discontinuous framework. Thus when they describe their former teachers they do not contrast their ‘student’ perceptions with a later, more sophisticated viewpoint. They talk about assessments they made as youngsters as currently viable, as stable judgments of quality” (p. 65). The comments labeled as evaluative build upon what we determined as functional responses because the PSTs do comment, to a small degree, on the nature of the experience, although they are not critical or deeply analytical. One such account is found in another of Mary’s comments:

I remember being disappointed upon entering school, because it seemed like there was not quite the place for science in the classroom that I had hoped there would be, or read about in my books at home. I was of course able to bring in my finds for show and tell, and even give a brief description myself of how I found it and what I thought it was, but the explanations didn’t go much farther than that.

Here Mary reports on her own schooling and admits disappointment, but does not interrogate the issue beyond this initial narrative.

In these entries, PSTs comment on the schooling experience in a manner that communicates an assessment of its value to them as individuals. Lortie (1975) reminds us, “the mind of the education student is not a blank awaiting inscription” (p. 66), which is fully evident in the comments from the evaluative grouping. Preservice teachers enter teacher education with a host of ideas about what is beneficial and what is unfavorable based on their own assessments of school. Katherine reflects, for instance, “Science means all these things to me, because the only time I enjoyed science or remember anything, were the times I was actively engaged, using my hands, to answer my questions.” These words indicate an evaluation of school practices from the apprenticeship of observation based on what was advantageous to the individual; here it is hands-on engagement that the student deems advantageous. Feiman-Nemser and Buchmann (1983) noted a similar capacity in PSTs, stating “ideas and images of classrooms and teachers laid down through many years as a pupil provide a framework for viewing and standards for judging” (p. 10). As seen above, the evaluations were often positive and, as exhibited in the functional statements of the first category, teacher candidates planned to translate their experiences into future practice. Beth relays this sentiment:

Every summer, a list of books was sent home. The summer reading was a big deal for many students because if you read a certain amount of books on the list you got a t-shirt and we were given an ice cream party. It was awesome and I felt totally cool! I have one memory that I find interesting about reading. My 4th grade teacher read aloud to the class a lot. She was a huge supporter of reading aloud to children. Although I did not enjoy this teacher much, I do remember being so intrigued by her reading and the books that she read. As a future teacher, I know I will try to incorporate as much read aloud time as I can. . . I know I had fun and

always wanted things to be fun at school. This is something I will carry with me and hope to share with my students.

Beth is careful to note that she did not necessarily like her teacher, but she evaluates the practice as one which was valuable to her, without mentioning why, but nevertheless one which she will implement.

Other instances exhibit a negative evaluation of educational encounters. Katherine provides an example in this realm:

Each year we were given extra credit to participate in the Science Fair. While I remember doing a science project, I do not remember any of the ones I did. Maybe I did something about which cleaner works best, a typical science project, but the results were not outstanding and nothing about it was memorable. I did the work at home and came up with the experiment on my own. I think that the science fair could have been used in a more effective way.

Relatedly, Beth also fosters a disapproving appraisal, “One of the main reasons that I never found science interesting in school was because I felt like I was memorizing vocabulary terms and facts and that was all that I was doing.” Here the PSTs reference the inefficacy of specific practices. They identify the practice as problematic. However, in these instances, they do not offer what they might do otherwise; rather they simply extend the experience and a comment on it. Kim portrays this lack of critique:

This was a question of mine when I saw my ninth grade teacher pull out this grammar book that I used throughout middle school. I thought that I had finally escaped the book, but it was back! I hated that book. It was a huge load of busy work. Who likes busy work?

Beyond the opinion of dislike toward “busy work,” there is no exploration of the apprenticeship of observation. What is missing at the evaluative level is why these practices are problematic and imagination of what could occur that might instead be transformative.

Affective Responses

The responses in this affective domain comprised 28% of the data, and this category characterizes teaching based on an emotional connection. The like or dislike of a teacher was conflated with the like or dislike of course content or a particular discipline. Lortie’s (1975) findings support this notion. He writes, “there is ample indication of affective responses of liking and disliking, identifying with or rejecting, but there seems relatively little basis for assuming students make cognitive differentiations and thoughtful assessments of the quality of teaching performances” (p. 63). For instance, Ashley described a high school experience as such:

Chemistry, junior year. I hated chemistry. My teacher played the favorites game, and I wasn't a favorite. I never got my questions answered...there were never very

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many visual demonstrations to help me wrap my head around the complex ideas being presented to me. I'm not sure if that had to do with the subject or the teacher, but either way it made for a miserable semester. . . . I know that the poor instruction had a lot to do with my outlook on the subject.

The PST in this example does not separate teacher from content and thus reports an apprenticeship of observation in which personal preference for the teacher controls the fate of how the student received material. This is similar to a finding in Holt-Reynolds' (1992) study, in which students "believed that the classroom formats they had encountered as . . . students were somehow inherently connected to the nature of . . . the discipline" (p. 335). Thus, teasing apart aspects of teacher, classroom, and discipline are rare actions. We found further evidence to solidify this finding in Meredith's words:

I have no doubt that I am the impassioned reader I am because of Mrs. Graham, her rocking chair, and her tattered copy of Gertrude Warner's "The Boxcar Children." I know that my love of characters stems from her ability to mesh our worlds. I am passionate about reading because of my second grade experience.

She associates her love for reading with her love of a teacher. In this statement, the two are inseparable. Relatedly, Beth describes her desire to emulate the teachers she had:

I had teachers that loved doing and teaching science and this bounced off onto the students because the students loved doing science. In order to foster a sense of love and enjoyment for science, teachers must come up with strategies that will excite students about the subject matter. I hope that I will be able to do this for my students.

In this reflection, Beth not only describes her affinity for her past science teachers, but uses them as models to plan for her own future practice. Her use of the emotive words "love" and "excite" are instrumental in this expression of an affective response. Weinstein's (1990) study similarly found candidates' "conceptions of good teaching centered on affective traits" (p. 140). Additionally, Sarah purports the notion that affiliation for a teacher determines acceptance of the discipline:

The teachers that I had a good experience with were knowledgeable about the subject and made it fun (and ones that I got along with!). So, as a future teacher, I hope that with this course I can discover new ways to teach science that make it interesting and fun as well as have a better understanding of elementary science.

This notion worked conversely as well, as many students noted dislike for the discipline based on their aversion to the teacher. Sarah reflects this at length:

I found myself hating it some years and loving it the next, all according to the teacher. 7th grade was not fun because I did not really get along well with my teacher. She was young and fun (to most students) so I remember her class being a little more upbeat and not as boring. But, it is difficult for me to remember some

of the things we did in her class for two reasons. One being that I spent a lot of time in the hall because I was talking or not paying much attention and the other reason is because I think I remember the “bad times” more than anything... my negative experiences with science were with teachers who were clearly uninterested in science themselves and had us do nothing more than copy definitions and read from the textbook. Interesting material became almost unbearable and science became a dreaded part of the day because our class knew it was going to be more listening to her/him read from the textbook, or more busy work until our science block was over.

Due to the prevalence of affective responses, there is a real need to summon autobiographical reflection in the context of teacher education. As in functional and evaluative responses, there is no consideration of what could have been done differently. Preservice teachers do not separate teacher from content or experience from affect. Therefore, teacher educators must draw these experiences into examination in order to disrupt the apprenticeship of observation.

Disrupted Responses

A final category of response that emerged in 10% of the data was of critical reflection on the PST’s apprenticeship of observation, which allowed the PST to consider a new perspective on how schooling can occur. This category moves beyond Lortie’s (1975) findings and begins to address what he proposes for teacher education. He asserts, “unless beginning teachers undergo training experiences which offset their individualistic and traditional experiences, the occupation will be staffed by people who have little concern with building a shared technical culture” (Lortie, p. 67). Furthermore, Mewborn and Tyminski (2006), similar to our work, expressed a belief that while Lortie’s paradigm reflected the ways in which images of teaching are reproduced, “there are ways in which the cultural transmission model can be disrupted” (p. 30). Their research expands the theory of the apprenticeship of observation into looking, instead of at how past experiences are a problem, at “how preservice teachers are able to transform their negative experiences as learners into positive teaching practices” (p. 31), thus looking at ways the apprenticeship of observation can be called upon and used in meaningful ways in teacher education, as we also propose. Our approach is unique in that we utilized the public sphere of blogging for reflection and as a way to discern disruption in conjunction with the practices and discussion in our methods courses.

As Mewborn and Tyminski (2006) write, “some future teachers are capable of being analytical about their goals for their teaching practices in light of their prior experiences” (p. 32). Although rare, this aspect did emerge in the blogs. We believe the blogs provide a space for beginning to establish a collaborative community in which autobiographical experiences are communicated and legitimated as an object of study. We connected with them in coursework in order to explore schooling traditions based in students’ experiences. For example, Jennifer shares:

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With the exception of a couple of instances, science was never an activity. During these years, science to me was a collection of facts and memorized vocabulary terms. The most complex things that we learned were diagrams that helped to explain the basic scientific processes that our teachers simply presented as the facts of life never made to seem important or interesting. . . . My teachers made science too easy; too straightforward. They taught us as if science existed in a vacuum; as if science never influenced humanity and humanity never engaged in science. I have now come to see that science is not just something that happens all around us. Science is meaningless without people, their problems, their motives, and their ideals.

Students began to engage in a realization that the perpetuation of traditional school practices was problematic. They questioned, critiqued, and mediated what they knew of schooling with what they were learning in coursework and field experiences.

Meredith interrogated her own lack of recollection against those memories which she did possess and assessed why this dichotomy might exist:

Perhaps the reason my memories do not include knowledge as much as memories is because they were teacher produced and student executed instead of student produced and executed. I did not necessarily have a desire to learn why the colors separate in milk with Dawn detergent or the parts of a cell—so the memory didn't stick. Whereas I had an inquiry about fireflies and the answer is still with me almost 20 years later!

Jan, in a powerful recognition of her taken-for-granted assumptions and practices, writes:

I grew up learning Standard English and never thought twice about it. It was what I saw as proper and I believed that if I talked just right, then everyone would be able to tell how much I had learned at school. I am sure that I noticed others in the classroom who spoke differently, but my teachers always corrected their speech. Thinking back to my teaching experiences, I can recall several times where I have corrected a students' speech for saying something that was not proper English, so I thought. I've realized . . . just how much someone's dialect is a part of them. It displays their culture, which is something that should never be lost.

Here Jan displays how her newly developed perspectives contradict what she had believed as a student, a quintessential example of disruption.

While Lortie (1975) claims that students place themselves in the teacher's role to "engage in enough empathy to anticipate the teacher's probable reaction to his behavior" (p. 62), thus that they only consider the teacher in relation to self and not teacher as self, we found that students began to examine the role of teacher in more depth by beginning to imagine the challenges of teaching. For example, Ashley writes:

I felt bad for Mr. Morehead, because he had to fight with ignorant parents year after year about the topics he was required to teach—like evolution. That is one of the many things teachers have to deal with that most people don't realize until

they are in the profession. It must be very stressful to have to deal with balancing what you want to teach with what you are required to teach, and then with what parents allow their children to learn.

Other forms of disruption included a critique of traditional practice and considering alternatives for future practice which were influenced by their experiences in teacher education. Jennifer recounts:

Inquiry-based science is exactly what the science curriculums I grew up with lacked. Looking back on my experiences, I believe that science was approached as a list of topics to be studied (the solar system, the human body, the water cycle), rather than a set of skills to be mastered through exploring scientific phenomena.

In another example, Meredith critiques her own experiences with science and ponders what she would like to implement for her own future teaching practice:

The fact that my memories are limited and focused mainly on my high school experience doesn't bode well for my elementary experience. I vaguely recall some worksheets but I was "gifted" and blew threw them with ease. I think science has begun to be taken more seriously, at least in my current elementary school. They are required to have science period every day in first grade. We try to make it fun but fun doesn't always stick. Instead of following the curriculum it would be amazing to just answer the questions they want to know about nature and life and patterns and how the world works.

Meredith is able to recall her experiences in her blog and connect them with learning gained through her current coursework and field observations. Her blog serves as evidence for this cognitive work. Without her narrative, we would not be able to perceive how our students made sense of new information and encounters against their primary orientations.

Discussion and Implications

Autobiographical reflection can be a significant experience in preservice teacher education if it allows PSTs to gain some "cognitive control over prior school experiences" (Feiman-Nemser, 1983, p. 11). Participating in reflection within the blog space allowed for community building and trust formation, a lens through which to discern our teacher candidates' connection of normalized past experiences to current teaching and observation, and a way for methods courses to build upon or challenge students' beliefs about teaching in an authentic way. Feiman-Nemser and Buchmann (1983) inform us "overcoming the familiarity pitfall should keep future teachers from confusing what is with what can or should be, and heighten their receptivity to new data" (p. 21). It was thus our attempt to help students work through their familiar notions of science and literacy and to use their examples in class. Although other work has included autobiographical reflection (Harkness, Ambrosio, & Morrone, 2007), in many cases it involves the PST delivering a

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composition to the instructor. These traditional assignments exist in isolation in which the assignment is seen as an academic performance. In this context, students complete coursework for the instructor as the audience. Our study placed learning in a social context of a blogging community and attempted to challenge notions of assessment centered on academic performance (Authors, 2013).

We also recognize, as Feiman-Nemser and Buchmann (1983) write, “future teachers cannot be expected to recognize that what they know about classroom life is only part of a universe of possibilities. They need help. . .” (p. 21). Thus, in the blogs, we created a public forum in which students engaged with peers in a community in order to encourage authentic learning in a collaborative sphere. As instructors, we consciously chose to refrain from actively commenting on student blog posts. We hoped that by eliminating the hierarchy of the teacher-student relationship, PSTs would be able to respond to one another in a manner that is the result of authentic reflection on practice rather than as an academic who is prompted via coursework. Commenting on the complications resulting from having to assign grades and the power differential that university-based courses incur, Holt-Reynolds (1992) calls for “activities, experiences, and assignments—that will invite preservice teachers to share their rationales and beliefs” (p. 345) but that we “shift our purposes away from evaluating and attempt instead to probe preservice teachers’ rationales” (p. 345). We hoped that through creating a space for blogging and thus an alternative to the traditional university assignment, we could provide a platform for students to share their beliefs. Having these experiences disclosed in the blogs allowed us to explicitly call upon them in class meetings. Not only were they thus on the forefront of students’ minds as they learned new material, but we thus also used them for the basis of discussion and points of comparison or contrast. We employed the pedagogy which Holt-Reynolds (1992) elucidates as:

Locating beliefs about teaching that are wrapped in those experiences, providing support for the personal courage required to question the completeness of long outstanding explanations for personal experiences, and considering alternative explanations for those events—these activities will be central to a pedagogy that practices discovering what students already know and then linking research-based ways of thinking about classrooms and teaching to that knowledge. (p. 346)

Thus was our intention in utilizing the blogs, and we believe engaging students in an activity such as this is a worthwhile practice in teacher education.

Within the blogs, we were able to see how PSTs began to negotiate a new identity. Lortie (1975) described the inability of students to think like a teacher and the necessity of experiences that invite students into this realm. He asserts, “They do not contrast their ‘student’ perceptions with a later, more sophisticated viewpoint” (p. 65). However, by having students reflect upon their autobiographical experiences in the public sphere of blogging in conjunction with coursework and observations, we began to see, through the disrupted responses, students were

in fact beginning to challenge the apprenticeship of observation and beginning to consider the position of a teacher, pedagogical practice, and student needs. While identity is a fluid category, we saw moments of the PSTs nascent professional identity through their discourse as emerging professionals.

Although these moments of disruption are powerful, not all PSTs exhibited these, nor were there blogs in which students' preconceived notions were holistically interrupted. Rather, some maintained a normalized stance toward schooling experiences, some began to question a few pedagogical practices while holding firm to others, and still others seemed to struggle with standard schooling wholeheartedly. Finally, there were many instances where a PST would critique practice in one blog posting, yet in another would report support for a traditional method. One limitation of this study is the lack of follow-up with the PSTs into their induction phase to examine the outcomes of this process on their pedagogical choices. We are unable to see if their moments of disruption persevered or reverted to traditional practice once the PSTs were fully immersed in the profession. Future research could examine how the reflections upon their apprenticeship of observation might impact their teaching dispositions and pedagogical choices.

As previously noted, there was limited instructor participation in the blogs in order to encourage authentic participation and minimize responses that function as an academic performance. However, we recognize that disruptions could have occurred more often if experienced teachers or course instructors were involved within this community of practice. We are still negotiating the delicate balance between fostering authentic responses in what is ultimately an academic setting. An additional complication of this academic setting is the tendency toward politeness that has been found in teacher discourse in general and the difficulty in fostering critique (Pfeiffer & Featherstone, 2007; Saunders, Goldenberg, & Hamann, 1992). The PSTs expressed their reluctance to critique one another or to offend someone in the community; had they been more adept at this skill, perhaps they would have been able to challenge normalizing statements.

Despite these concerns, we assert that using blogs as a tool for publically reflecting upon autobiographical experiences provides an opportunity for PSTs to examine their apprenticeship of observation and provides a space to express disrupted responses. We have identified four ways that PSTs use autobiographical narrative to reveal their apprenticeships of observation, one of which was critical and disrupted. These critical responses are particularly powerful in two ways: in one, they demonstrate students' consideration and negotiation of new perspectives in a constructive manner, by which they integrate a new discourse into an older one (Lewis & Ketter, 2011), and in a second, related aspect, they speak to the potentially robust influence of teacher education and the results it can effect. Without the apprenticeship being called into question in some fashion, such as in the blogs, PSTs are likely to fall back on traditional methods, albeit perhaps even unconsciously. The public space of the blogs strengthened this work because it

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was not submitted as an academic performance and allowed for others to witness disruption. Furthermore, Lortie (1975) avows, “Unless students in training can experience at least some sense of genuine collegiality—some sharing of technical problems and alternative solutions—they will be ill-prepared for such efforts when they work alongside one another” (p. 66). The blogs allowed for this type of sharing; PSTs were able to summon autobiographical experiences through blog posts and interrogate their own preconceptions of schooling while commenting on others, thus developing a sense of collegiality to which Lortie (1975) refers.

We propose incorporating critical autobiographical reflection through the use of blogging not only within teacher education programs but suggest its use with in-service teachers as well. The public space of blogging is invaluable in providing an opportunity for disruptions and thus creating a space for pedagogical change. If we hope to encourage transformative practice that breaks the cycle of reproduction of normative schooling, we need to find spaces that afford teachers a way to interact with colleagues, share ideas, and critique one another. Our work with PSTs hoped to model this for candidates so that they can continue in their career teaching, but work with both preservice and in-service teachers that connects beliefs to practice in a social context should continue.

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Appendix

Table A1
Primary Codes and Definitions

Primary code category	Definition of primary code
Personal education/ autobiography	Student references own schooling experiences or own cultural background.
Reflection on course content	Generally, these are responses to course material; either to summarize, or to reflect and integrate, or to critique.
Commenting, analyzing, observing others practice	Responding, reflecting or otherwise commenting on practice. Generally, this is discussion of the classroom practices that they are observing in their field placements.
Studying content	Responding to actual content—reading books, thinking about specific science content knowledge, specific literacy practices.
Studying own practice	Reflecting and commenting on own classroom practices and pedagogies
Affective Domain	Expressing fondness, stress, anxiety, joy or other emotional venting that isn't any of the other categories
Community	Based upon a number of factors, including the members' meaningful participation, social and cognitive processes, and social practices—that reflects the beliefs, values, history and experiences of the community members and allows for conflict of opposing thoughts and ideas.
Stance taking	Re-stating course material as their strong opinion or responding to practice with strong opinions. Collective ("we" statements) or individual ("I" statements) stance taking. As teachers....." comments.
Planning for future practice	Pedagogical decision making about future classrooms which is based upon course content, other's practice and their own experiences.