

ABSTRACT

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This exploratory study investigates preservice teacher written reflection during the full-time internship semester and trends across assignments, topics, and interns that may have a relationship with dialogic or critical reflection. Sociocultural theory serves as the theoretical underpinning of the study. The study applies Hatton and Smith's (1995) types of writing: descriptive writing, descriptive reflection, dialogic reflection, and critical reflection. Case study and content analysis methodologies are simultaneously used to address the research questions. This study reveals that interns engage in written reflection within all three categories (descriptive reflection, dialogic reflection, and critical reflection) (Dinkelman, 2000; Hatton & Smith, 1995), however, the overwhelming majority of reflection is descriptive reflection (95.8%), followed by dialogic reflection (4.1%) and critical reflection (0.1%). This study did not find a single condition, topic, or assignment that guarantees written dialogic or critical reflection. Instead, this study found that intern written dialogic and critical reflection appears to be an outgrowth of a

combination of factors including, but not limited to, intern understanding of reflection, internship semester responsibilities, assignment design, and the role of the college supervisor.

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By

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Chapter 1: Introduction

Rationale

Since the beginning of my teacher preparation I remember being told to reflect. I wrote reflective journals during my field placements every semester of college. When I student taught my supervising teacher required me to sit and reflect in writing about a lesson before we would discuss the lesson. I was given little formal guidance on how to reflect, I was just told to do so.

When my role changed from student of teacher education to mentor teacher and later to university supervisor, I asked the student interns with whom I worked to reflect on their classroom observations and teaching. I was initially disappointed with what I read and heard—the interns were simply retelling the story of the lesson or day. They were describing what happened with little or no emphasis on student learning or the social and political implications of the events in the classroom. I then provided a scaffold: I modeled my own reflective thoughts for the interns and probed the interns to think further with follow-up questions. With this support the interns went beyond describing in their practice. This pattern persisted as I worked with interns from two different institutions of higher education enrolled in three different teacher education programs (two undergraduate and one masters).

Studying teacher reflection can be traced back to John Dewey in the beginning of the twentieth century. Dewey was “one of the first educational theorists in the United States to view teachers as reflective practitioners, as professionals who could play very active roles in curriculum development and educational reform” (Zeichner & Liston,

1996, p. 8). Over the last century there have been a wide variety of definitions, levels, and frameworks used for describing and analyzing reflective practice (Copeland & Birmingham, 1993; Dewey, 1910; Loughran, 2002; Schön, 1983; Valli, 1997; Zeichner & Liston, 1996). Since the terms “reflective practice” and “reflective teacher/teaching” have been so widely used they have lost meaning, it is important that we clarify the definitions in research and practice (Loughran, 2006; McLaughlin, 1999; Rodgers, 2002). This study will use Hatton and Smith’s (1995) definition that reflection is “deliberate thinking about action with a view to its improvement” (p. 40).

As teacher reflection gained popularity, reflection became an integral part of teacher education (Loughran, 2002). Darling-Hammond (2006) emphasized the need for teachers to learn *for* and *from* teaching; reflection can make it possible for preservice teachers to learn *from* teaching and alter practice *for* future teaching. Similarly, Hammerness, Darling-Hammond, and Bransford (2005) identified that prospective teachers “need to develop metacognitive habits of mind that can guide decisions and reflection on practice in support of continual improvement” (p. 359). Providing teachers the skills and dispositions to continually improve is essential since curriculum and student needs will change over the course of a teacher’s career.

The existing research base on preservice teacher reflection provides a foundation on which this study is built. First we must justify why this area deserves research attention. Giovannelli (2003) found there is a significant relationship between reflective disposition and effective teaching behaviors and Dinkelman (2000) found that critical reflection is a reasonable goal of preservice teacher education; therefore, preservice teacher reflection is an area worthy of further study. Hatton and Smith (1995) used

content analysis to identify four types of writing (descriptive writing, descriptive reflection, dialogic reflection, and critical reflection) in the work of undergraduate teacher education students and the current study will apply these types of writing.

There are many factors that seem to influence the type of teacher reflection including student dispositions and assignment design. Preservice teacher epistemology can be a barrier to reflection (Rovegno, 1992). Assignment design influences the type of preservice teacher reflection (Sewall, 2009). Assignment design provides scaffolds, focus areas, and tasks for preservice teachers. In online discussion boards Whipp (2003) found that students in her education classes were more likely to reach higher levels of reflection with modeling and scaffolding provided by the instructor. Nagle (2009) analyzed student portfolios for the Vermont Teacher Licensure program and found that the preservice teachers more often reached critical reflection in writing when they focused on student learning. Building off of the existing research in the field, this study investigates preservice teacher writing for reflection and trends across assignments, topics, time, and interns.

Research Questions

1. What categories of preservice teacher reflection are revealed by internship assignments?
2. For each assignment, are there patterns revealed in the dialogic and critical reflection? If so, what are the patterns?
3. What topics are present in writing for various categories of reflection?
4. Are there trends in the categories of reflection over time? If so, what are the trends?

5. Are there patterns within and across individual interns' reflection? If so, what are the patterns?

These questions are generated from the existing literature in the field of preservice teacher education and the sociocultural theoretical perspective.

Sociocultural Theory

The literature on preservice teacher education and reflection acknowledges the role of “others” as a tool to promote learning and develop reflective habits (Bates, Ramirez, & Dirts, 2009; Hatton & Smith, 1995; Loughran, 2006; Valli, 1997). Valli (1997) believes that “reflection must be a collective undertaking” (p. 86). Teacher educators need to help students learn how to reflect (Ward & McCotter, 2004) and one way to do this is through modeling (Loughran, 2006). In their review of the research, Dymont and O’Connell (2010) found “the skills required to generate higher levels of reflection require more than simply practice; they also require guidance, critique, mentoring, and reinforcement” (p. 238). This emphasizes the role of others in developing higher levels of reflection. In their study, Bates, Ramirez, and Dirts (2009) focused on the supervisor’s role in facilitating the development of critical reflection in preservice teachers. They found “an understanding of critical reflection is something that builds over time for student teachers through exposure to their supervisor’s practice” and “explicitly modeling, guiding, and communicating the importance of critical reflection in teaching practice through supervisory stance helps teacher candidates develop critically reflective practices and understandings” (Bates, Ramirez, & Dirts, 2009, p. 99). Whipp (2003) found that with scaffolding teacher education students reflected more at the dialogic and critical levels in online discussions than without the scaffolding. All of these findings

together support the role of others, specifically aspects of teacher education programs, in developing reflective skills in preservice teachers. The role of others is evident both in human resources (ex. mentor teachers, supervisors, and teacher educators) and in structural supports created by those human resources (ex. assignments and material resources). To further the field of preservice teacher reflection this study will use a framework of sociocultural theory. The following sections will first give an overview of sociocultural theory and then discuss related studies that applied sociocultural theory.

The theory.

Lev S. Vygotsky is “widely recognized as the founder of sociocultural theory” (Mahn, 1999, p. 341). Vygotsky and his colleagues developed the theory in the 1920s and 1930s in Russia, however the work was not widely accessible until the 1950s and 1960s (John-Steiner & Mahn, 1996). The theory’s central concept is “human activities take place in cultural contexts, are mediated by language and other symbol systems, and can be best understood when investigated in their historical development” (John-Steiner & Mahn, 1996, p. 191). Sociocultural theory has its roots in cultural psychology (Wertsch, del Rio, & Alvarez, 1995) and is influenced by psychology, gestaltism, linguistics, and enculturation (Jaramillo, 1996). Other terms for sociocultural theory include cultural-historical and sociohistorical (Wertsch, del Rio, & Alvarez, 1995).

Within sociocultural theory, there is a “dynamic interdependence of social and individual processes” (John-Steiner & Mahn, 1996, p. 192) as the approach explicates “the relationships between human action, on the one hand, and the cultural, institutional, and historical situations in which this action occurs, on the other” (Wertsch, del Rio, & Alvarez, 1995, p. 11). In Vygotsky’s (1997) words “...*human learning presupposes a*

specific social nature and a process by which children grow into the intellectual life of those around them” (p. 34), thus the “others” are integral to the learning. Although Vygotsky uses the term children, this theory can be applied to adult learners since “many activities undertaken by children carry the same sort of novelty as those encountered by beginners learning in professional settings” (Spouse, 2001, p. 514).

A well-known aspect of Vygotsky’s work is the zone of proximal development (ZPD). The ZPD was popularized with an English-speaking audience with the 1978 English publication of *Mind in Society* (Chaiklin, 2003). The actual developmental level is what a learner is capable of independently and Vygotsky distinguishes this from the ZPD (Vygotsky, 1997). The zone of proximal development is “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1997, p. 33). The guidance of another person can come in the form of direct conversation or through the programmatic structures such as course sequences and assignments. Thus, the scaffolding mentioned in some of the studies on preservice teacher reflection provided interns guideposts to move from the actual level of development to the level of potential development.

Applications of sociocultural theory.

Sociocultural theory is often used in literacy studies because it was a concern for Vygotsky (John-Steiner & Mahn, 1996; see also Thorne, 2005), although sociocultural theory has also been used in research on professional education, adult education, teacher education, and teacher reflection. In teacher education, sociocultural theory acknowledges that learning to teach does not occur in isolation, but within a system

including college/university and practicum settings. The messages from the different settings within the system may be complementary or contradictory and they shape opportunities for learning (McDonald, 2008). Within the teacher education program the prospective teachers, university courses, and clinical placements combine to create teachers' opportunities to learn. University courses include the assignments required for the course in addition to the messages conveyed during seat time for the course. The interplay between the systems shape the subsequent prospective teacher learning.

Sociocultural theory is essential to understand preservice teacher development since "a student's development cannot be understood by a study of the individual; we must also examine the *external social world* in which that individual's life developed" (Jaramillo, 1996, p. 136). Further, sociocultural theory is "helpful to understand complex interactions associated with supervising and learning professional craft knowledge" (Spouse, 2001, p. 515). Sociocultural theory has been used in research on professional education, teacher education, and teacher reflection and it holds promise for continued research on preservice teacher reflection.

Sociocultural theory in the current study.

Similar to Spouse's (2001) work in nursing education, this study will investigate the factors influencing the development of reflective practice in preservice teachers during the full-time internship semester. Sociocultural theory advocates for studying a system instead of the individual (see McDonald, 2008 for applications in teacher education). Prior learning and dispositions have accumulated throughout the preservice teacher's lifetime and need to be taken into account as potential long-standing influences on the preservice teacher. Nested within prior learning and dispositions, are the learning

in college coursework alongside college teacher educators and peers. Contextual support plays a role in developing intern reflection (Denton, 2011). Finally, the internship assignments, supervisor, mentor teachers, peers, methods instructor, and school placement during the internship semester influence preservice teacher reflection.

Conceptual Framework

I began my research with an interest in preservice teacher reflection. Figure 1 illustrates the full-time internship semester for a preservice teacher. Sociocultural theory served as a spotlight since “it draws your attention to particular events or phenomena, and it sheds light on relationships that might otherwise go unnoticed or misunderstood” (Maxwell, 2005, p. 43) showing that it was important to look beyond the individual preservice teacher. Thus, sociocultural theory illuminates the influence of the context including, but not limited to, college/teacher educators, college coursework, and prior learning and dispositions (pink oval on Figure 1). During the internship semester the mentor teacher, college supervisor, peers/cohort, and placement setting influence the preservice teacher. From my work as a mentor teacher, university supervisor, and teacher educator I learned that internship assignments shape the interns’ focus during the internship semester. There is also a possible reciprocal relationship between the assignments and the preservice teachers, as the preservice teachers could have an impact on the assignments. For this study, these arrows of influence were simplified to one-direction, as that is the scope of the current research.

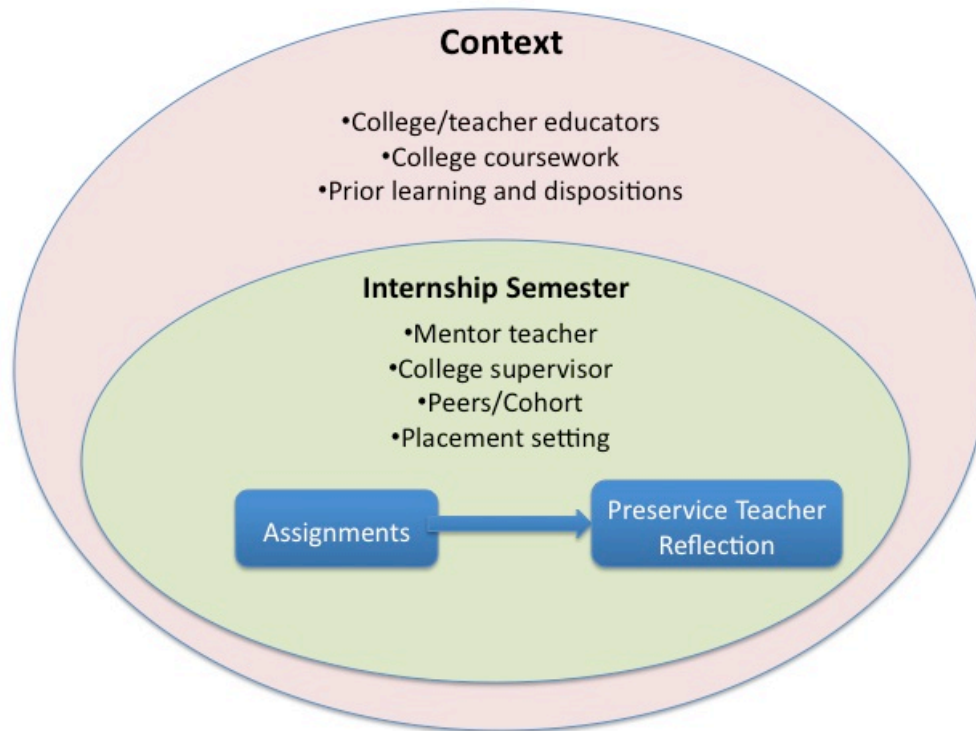


Figure 1. Conceptual Framework

Teacher educators design, assign, and provide feedback on preservice teacher written reflection. These assignments are a vehicle to measure preservice teacher written reflection. Assignments represent much of the college influence on the preservice teacher during the internship semester. The design of assignments can help to reveal different types of preservice teacher reflection (Sewall, 2009).

This chapter introduced the study rationale, research questions, theoretical framework, and conceptual framework. The next chapter will go into depth reviewing the relevant literature on definitions of reflection and studies on preservice teacher reflection.

Chapter 2: Literature Review

What is Teacher Reflection?

To define teacher reflection, this chapter will begin with a brief overview of Dewey's (1910) ideas since many researchers connect their own definitions to Dewey's. After a review of Dewey's ideas, the chapter will move to definitions from the 1980s to the present, giving a sampling of definitions from the past three decades.

Dewey's definition of reflection.

In his book *How We Think*, John Dewey (1910) defined reflective thought as “*Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends*” (p. 6). The focus is on knowledge generation in which a person suspends judgment while inquiring on a topic. Dewey acknowledged that suspending judgment might be a painful process. The elements in reflective thinking are “(a) a state of perplexity, hesitation, doubt; and (b) an act of search or investigation directed toward bringing to light further facts which serve to corroborate or to nullify the suggested belief” (Dewey, 1910, p. 9). Reflection builds on previous conclusions, it is “a consecutive ordering in such a way that each determines the next as its proper outcome, while each in turn leans back on its predecessors” (Dewey, 1910, pp. 2-3).

Dewey (1910) went on to explain that thinking begins at a “forked-road situation” (p. 11). If one moves through activity smoothly there is no need for reflection. Reflection occurs when there is difficulty moving through an activity, similar to Piaget's stage of disequilibrium, and “we metaphorically climb a tree; we try to find some standpoint from which we may survey additional facts and, getting a more commanding view of the

situation, may decide how the facts stand related to one another” (Dewey, 1910, p. 11). This is just one place where Dewey clearly distinguished routine thinking from reflective thinking. He contrasted “*reflective* thinking with habits of thought that are unsystematic, lack evidence, are based on false beliefs or assumptions, or mindlessly conform to tradition and authority” (Valli, 1997, p. 68). Dewey characterized three types of routine thought: stream of consciousness, invention, and belief (Rodgers, 2002). Although not reflection, these types of thinking are important because they “often serve up the very questions that reflection can productively tackle” (Rodgers, 2002, p. 849).

Dewey also wrote about three attitudes that were essential to reflective practice: openmindedness, responsibility, and whole-heartedness (Pedro, 2006; Zeichner & Liston, 1996). Openmindedness is a willingness to consider multiple or novel ideas (Pedro, 2006; Zeichner & Liston, 1996). Responsibility is when one “considers what they are doing in terms of why its working, ways in which it is working, and for whom it is working” (Zeichner and Liston, 1996, p. 11). In teachers, responsibility is evident when they “evaluate their teaching by asking the broader questions, ‘are the results good, for whom, and in what ways,’ not merely ‘have the objectives been met?’” (Zeichner & Liston, p. 11).

According to Dewey (1910) the process of reflection has five steps:

- (i) a felt difficulty;
- (ii) its location and definition;
- (iii) suggestion of possible solution;
- (iv) development by reasoning of the bearings of the suggestion;
- (v) further observation and experiment leading to its acceptance or rejection;

that is, the conclusion of belief or disbelief. (p. 72)

Dewey clarified that steps one and two can be separate or merged together. These steps seem remarkably similar to the scientific method of investigation, which has been criticized recently by McLaughlin (1999). McLaughlin believes that:

A number of the features of Dewey's account of reflective thinking invite doubt about its adequacy as a comprehensive account of teacher reflection. Is the sort of reflection engaged in by teachers always so explicit and systematic? Do 'problem solving' and scientific forms of thought have the salience in teacher reflection which Dewey suggests? (p. 13)

Although Dewey's steps are sometimes criticized for the rigid process that has not prevented some modern scholars from detailing steps in the process of reflection (see Copeland & Birmingham, 1993).

Modern definitions of reflection.

Using Dewey's work as a foundation, this section will now move into a chronological discussion of definitions of teacher reflection from the last three decades. The definitions represent a sample of modern definitions over time. Theorists were selected for inclusion in this section based on the number of references to their work in my preliminary reading on teacher reflection. It is important to note that they do not serve as a comprehensive set or representative sample from a given time period.

Seventy years after Dewey published, Schön (1983) expanded upon Dewey's definition of reflection by adding the actions of framing and reframing problematic situations in order to "organize and clarify both the ends to be achieved and the possible means of achieving them" (p. 41). The idea of framing is one that continues to be

influential in the literature. References to “framing” and “lenses” with respect to analyzing situations are common (see Loughran, 2002; Valli, 1997; Zeichner & Liston, 1996).

Other theorists who focused on problem solving were Copeland and Birmingham (1993) who described their “vision of reflectivity as a teacher’s tendency to engage in a conscious process of identifying problematic issues in their practice and pursuing solutions that bring about valued effects on student learning” (p. 358). This conscious process is similar to Dewey’s distinction between reflective and non-reflective thought and consistent with the idea that not all thinking is reflective. Copeland and Birmingham based their work on four assumptions: “Engaging in Reflective Practice Involves a Process of Solving Problems and Reconstructing Meaning” (p. 348), “Reflective Practice in Teaching is Manifested as a Stance Toward Inquiry” (p. 349), “The Demonstration of Reflective Practice is Seen to Exist Along a Continuum” (p. 349), and “Reflective Practice Occurs Within a Social Context” (p. 349). The first two assumptions are very similar to Dewey’s ideas.

Copeland and Birmingham (1993) focused on the conscious process for reflection and Zeichner and Liston (1996) built on this idea and applied it to teachers. Zeichner and Liston distinguished reflective teachers from technical teachers, much like Dewey distinguished reflective and unreflective thought. Just because a teacher thinks about their practice they are not necessarily a reflective teacher (Zeichner & Liston, 1996). In their words,

A reflective teacher: examines, frames, and attempts to solve the dilemmas of classroom practice; is aware of and questions the assumptions and values he or

she brings to teaching; is attentive to the institutional and cultural contexts in which he or she teaches; takes part in curriculum development that is involved in school change efforts; and takes responsibility for his or her own professional development. (Zeichner & Liston, 1996, p. 6)

This definition incorporates Schön's idea of frames and Dewey's ideas of problem solving and responsibility. There are also connections to social justice and critical reflection. This definition is unique because it articulates specific roles of a reflective teacher (curriculum development and professional development) instead of listing general qualities.

In 1997, Valli defined reflective teachers as those who “link theory to practice and school policies in order to become better teachers, analyze problems from multiple perspectives, and use new evidence to reassess decisions. Reflective teachers can alter their teaching behavior and context to accomplish desirable goals” (p. 70). Analyzing problems from multiple perspectives is similar to Schön's frames.

Nearly twenty years after Schön's contribution of frames, Loughran (2002) still emphasized:

Effective reflective practice is drawn from the ability to frame and reframe the practice setting, to develop and respond to this framing through action so that the practitioner's wisdom-in-action is enhanced and, as a particular outcome, articulation of professional knowledge is encouraged. (p. 42)

Table 1 shows the similarities between the definitions. It is important to note that some of the themes were implicit in the definitions and thus not marked on the table (for example, Schön implies frames are used for problem solving but since it is not an explicit

part of his definition it is not highlighted on the table). Dewey had the most comprehensive definition of the theorists discussed. The theme of frames is the most common amongst the theorists.

Table 1

Elements of Definitions of Reflection

Theorist	Year	Continuum of types of thought/reflection	Triggered by difficulty	Active process	Problem solving stance	Iterative process	Knowledge generation focus	Stepping back	Responsibility	Multiple perspectives	Self-awareness	Frames	Change in practice	Social context
Dewey	1910	x	x	x	x	x	x	x	x	x				
Schön	1983											x		
Copeland & Birmingham	1993	x		x	x									x
Zeichner & Liston	1996	x			x				x		x	x		x
Valli	1997					x				x		x	x	
Loughran	2002											x	x	

Changes in definitions over time.

Within the literature that explicitly defines reflection, there have been few changes over time. It is significant that even though there are a plethora of definitions about reflection, the definitions share common elements showing that there is consistency. Loughran (2006) identified two common aspects of reflection are ideas around a “problem” and “framing and reframing” (p. 96). The problem is important because there needs to be an object of reflection, or to use Dewey’s metaphor, a time when one needs to climb a tree. The use of framing is probably a result Schön’s influential work in the

1980s. Tom (1992) also identified that many uses of the term inquiry oriented teaching shifted to the term reflective teaching which he also attributes to Schön. Danielson (2008) noted that “In the last 15 years, a great deal has been learned about reflective practice, and emphasis has been placed on fostering reflection as an active behavior in contemplating past, present, and future decisions” (p.130).

Although the theorists discussed in the previous section clearly define the term reflection, many teacher educators and researchers have not been so explicit causing the term reflection to lose meaning (Rodgers, 2002). Now, “the reflective practitioner’ is often used as a vague slogan rather than as a concept whose meaning and implications are well thought through and worked out” (McLaughlin, 1999, p. 9). Some educators and researchers use the term reflection to mean any type of thinking about teaching and in these instances “reflection” does not imply a conscious process, standing apart from the situation, or viewing with different frames. As teacher reflection has increased in popularity and lost meaning it has become even more important to specify a definition of reflection. This study will use the same definition of reflection that Hatton and Smith (1995) developed for their reflection research for consistency since this study will be using their system of reflective writing classifications. For this study, reflection is “deliberate thinking about action with a view to its improvement” (Hatton & Smith, p. 40).

Why is Teacher Reflection Significant?

According to Shulman (1986) reflection is one of the characteristics that separate workers from professionals:

The teacher is capable of reflection leading to self-knowledge, the metacognitive awareness that distinguishes draftsman from architect, bookkeeper from auditor.

A professional is capable not only of practicing and understanding his or her craft, but of communicating the reasons for professional decisions and actions to others.

(p.13)

In addition to reflection being an action of a professional, many theorists have identified other important reasons for teacher reflection. Reflection allows teachers to be lifelong learners, empowers teachers to change their condition, and helps teachers generate knowledge (Loughran, 2002; Shandomo, 2010; Zeichner & Liston, 1996).

Reflection is a way for teachers to continue learning beyond the limits of their teacher preparation. Shandomo (2010) suggested:

that teachers must maintain curiosity and develop the habits of inquiry and reflection that will continuously move them forward... This means that rather than rely on the authority of others, their own impulse, or unexamined previous practice, they as teachers must continually examine and evaluate their attitudes, practices, effectiveness, and accomplishments. (p. 103)

Teachers use reflection to continually grow and develop in the field. This is especially important because Zeichner (1994) identified that “the process of learning to teach continues throughout a teacher’s entire career” (p. 11).

Another benefit of teacher reflection is teacher empowerment through educational reform and professional development. Developing reflective practitioners was one aspect of educational reform in the 1990s. Zeichner and Liston (1996) suggested “seeing teachers as reflective practitioners is also a rejection of top-down forms of education

reform that involve teachers only as conduits for implementing programs and ideas formulated elsewhere” (p. 4). Through reflection, teachers are thus empowered to create change themselves instead of implementing changes passed down through the educational bureaucracy. Reflection also allows teachers to take control of their own professional development (Zeichner & Liston, 1996, p. 6). Loughran (2002) elaborated, “for those who see professional development partly as an emancipation of practice by learning through practice, reflection is indeed at the heart of the matter and equally valuable regardless of the profession” (p. 34).

The final benefit of teacher reflection found in the literature is improved teaching. Zeichner and Liston (1996) “believe that as teachers, it is through reflection on our teaching that we become more skilled, more capable, and in general better teachers” (p. xvii). Darling-Hammond (2006) wrote “when teachers study and reflect on their work and connect it to research and theory, they are better able to identify areas needing improvement, consider alternative strategies for the future, and solve problems of practice (Freise, 1999; Labosky, 1992)” (p. 103). By reflecting on their practice teachers have the ability to improve their teaching.

The call for teacher reflection has been consistent; however, the rationale for reflection has changed. In the 1990s, the push for reflection as educational reform was to improve student learning. At other times the reasons have been framed for the benefit of the teachers themselves—personal learning, personal improvement, personal generation of knowledge. No matter what the rationale, however, reflection has been seen as a desirable trait in teachers.

What are the Critiques of Teacher Reflection?

As literature about teacher reflection has proliferated in recent years, teacher reflection has also been the recipient of criticism in the field. Two common critiques are problems of practice around teacher reflection and the misuse of the term reflection. As many teacher education programs and districts join the teacher reflection bandwagon it is important to remember that reflective teaching is not necessarily “good” teaching (McLaughlin, 1999). It is possible for a teacher to reflect and simply justify previous practice. Also, just because a teacher reflects it does not guarantee a change action, specifically “the techniques associated with reflection may come to represent the action of reflection” (Noffke & Brennan, 2005, p. 70). Reflection may also dwell on past events and actions and not serve as a tool for looking forward and altering future practice.

As mentioned in the previous section, teacher reflection has had many meanings over the years leading to a lack of consensus in the field about the terminology (Collin, Karsenti, & Komis, 2013). Theorists have also presented a variety of frameworks for reflection, many of which include hierarchical levels, which suggest one type of reflection is better than another (Collin, Karsenti, & Komis, 2013). In reality, different types of reflection can serve teachers in different ways.

Why Should Reflection be Incorporated into Preservice Teacher Education?

It is imperative we explore *why* teacher reflection should be incorporated into preservice teacher education before discussing *how* teacher reflection is incorporated into preservice teacher education. Feiman-Nemser (2001) identified the central tasks of learning to teach at the preservice, induction, and continuing professional development stages. Three of the five central tasks she identified for preservice teachers are to

“examine beliefs critically in relation to vision of good teaching,” “develop an understanding of learners, learning, and issues of diversity,” and “develop the tools and dispositions to study teaching” (Feiman-Nemser, p. 1050), all of which can be accomplished through dialogic and critical reflection, as defined by Hatton and Smith (1995).

Darling-Hammond (2006) emphasized the need for preparing teachers to learn *for* and *from* teaching. Reflection can make it possible for teachers to learn *from* teaching and *for* future teaching. Similarly, Hammerness, Darling-Hammond, and Bransford (2005) identified that prospective teachers also “need to develop metacognitive habits of mind that can guide decisions and reflection on practice in support of continual improvement” (p. 359). Continual improvement is important since just knowing the content is “not adequate preparation for being able to teach” (Zeichner & Liston, 1996, p. 53).

How is Reflection Incorporated into Preservice Teacher Education?

Reflection has become “a foundation for many teacher education programs” (Loughran, 2002, p. 33). Zeichner (1994) identified five traditions of reflective practice in teaching and teacher education: academic, social-efficiency, developmentalist, social-reconstructionist, and generic. The academic tradition “stressed reflection about subject matter and the representation and translation of that subject-matter knowledge to promote student understanding” (Zeichner, p. 15). A teacher using this tradition may reflect on the effectiveness of teaching two-digit multiplication to her class. The social-efficiency tradition “has historically emphasized faith in the scientific study of teaching (by those other than teachers) to provide a basis for building a teacher-education curriculum” (Zeichner, p. 16). A teacher using this tradition may see the researcher as the holder of

knowledge and compare her teaching practice to what research says she “should” be doing. The developmentalist tradition “prioritizes reflection about students, their thinking and understandings, their interests, and their developmental growth” (Zeichner, p. 16). A teacher reflecting in this tradition may focus on the student and their readiness to learn the material. The social-reconstructionist tradition is when “reflection is viewed as a political act which either contributes toward or hinders the realization of a more just and humane society” (Zeichner, p. 17). Teachers reflecting using this tradition may “examine the social and political consequences of teaching” (Zeichner, p. 17). The final tradition is the generic tradition that advocates for:

reflective teaching in general, without much comment about what it is the reflection should be focused on, the criteria that should be used to evaluate the quality of the reflection, or the degree to which teachers’ reflections should involve the problematization of the social and institutional contexts in which they work. (Zeichner, p. 17)

Zeichner (1994) and Valli (1992) were both critical of the generic tradition because it treats all events with the same level of importance and assumes teachers are automatically better because they reflect. Zeichner and Liston (1996) noted that teachers use more than one of the above traditions. Zeichner (1994) believes that teacher education programs incorporate all of the traditions with varying emphasis whereas Nagle (2009) believes that deliberately teaching reflective practice usually follows an academic, social efficiency, or developmentalist tradition.

Facilitating preservice teacher reflection.

There is evidence that teacher education programs have the ability to influence interns' ability to reflect (Tessema, 2008; Valli, 1997), supporting interns' progression to the higher limits of their zone of proximal development. However, Edwards and Thomas (2010) cautioned that "reflective practice cannot be a prescriptive rubric of skills to be taught; in fact, to see it in this way reverts to the very technicist assumptions reflective practice was meant to exile" (p. 404). Teacher educators must remember that reflecting on teaching requires time, experience, and effort (Pedro, 2006). Harrison and Lee (2011) specified that one year is a short time span in which to transform reflection, but in the related field of reflection in nursing education, Epp (2008) found evidence that it is possible for undergraduate students to reflect at higher levels and reflective skills can be developed throughout undergraduate education.

Dinkelman (2000) conducted one study in which preservice teachers were able to critically reflect. Dinkelman used an action research case study method to examine critical reflection in three preservice social studies teachers for whom he was a university supervisor. His research questions were:

- (1) What was the extent and nature of the critical reflection and critically reflective teaching evident among three preservice teachers in the Methods and student teaching semesters of a research university secondary social studies teacher education program?
- (2) What factors hindered and supported my attempt to promote critically reflective teaching? (p. 196)

Dinkelman did not attempt to separate his roles of researcher and university supervisor for the study participants; he even noted that he let his findings as a researcher inform his

practice as a university supervisor. His goal as a university supervisor was to encourage critical reflection. Dinkelman collected data through journals and interviews. After analyzing the data, Dinkelman concluded that critical reflection is a reasonable goal of preservice teacher education.

Even though there is evidence that the process of reflection can be taught, there remain challenges for teacher educators. The two main challenges include prospective teachers' preconceptions and teacher education program goal realization.

The prospective teachers' preconceptions can be a barrier to reflection, including preconceptions of:

the essential preconditions which allow student teachers to develop reflective capacities, their possible responses to being required to undertake reflection, and the structural and ideological program milieu within which various kinds of reflecting are being encouraged. (Hatton & Smith, 1995, p. 36)

Similarly, Dymont and O'Connell (2010) believe students must have an open stance or they will simply write about the event instead of offering up true reflection. Ostorga (2006) affirms that in order for reflective thinking to transcend teacher preparation and continue into a teachers' career:

...it is necessary to promote a development in their values about learning, a change in their epistemic stances....This transformation needs to be situated at the very core of their being, at the affective level, where the values about practice are forged. (p. 18)

Intern preconceptions are one of the challenges that teacher educators need to overcome to facilitate preservice teacher reflection.

One example of intern epistemology preventing deep reflection is in Rovegno's (1992) case study of a physical education preservice teacher. Rovegno addressed the research questions "1) What was the perspective on knowing of one preservice teacher during a field-based elementary physical education course? and (2) What meanings did she make of course learning experiences" (p. 493)? Rovegno collected her data from nonparticipant observation of a methods class for an entire semester, formal and informal interviews, related course documents, and student work. From constant comparison of the data Rovegno found that the main topic the participant "discussed was the value she held for received knowledge and her frustration with assignments based on constructed knowledge" (p. 494). Rovegno found "what unfolded over the semester was the story of a dedicated student who was frustrated by and dissatisfied with reflection experiences that were inherent in course content" (p. 496). Even though the preservice teacher and teacher educator worked together on reflection, the preservice teacher's ability to reflect did not change very much. Teacher educators need to examine where their students are at the beginning of the semester and appropriately guide them to a reflective disposition towards teaching since the path will be different for each student.

A second challenge for teacher educators is that just because a teacher education program is explicit about a goal does not mean that there will be evidence of critical reflection around that goal. For example, Zeichner and Liston (1985, as cited in Zeichner, 1994) used the domains of technical, practical, and critical reflection and "found very little evidence of critical reflection among student teachers who were enrolled in a programme that stressed issues of equity and social justice" (p. 13). Issues such as these prove to be challenges for teacher educators as they develop reflective practitioners.

The process to develop reflective practitioners is not linear or easily prescribed since it is a personal journey (Larrivee, 2000). Thus, it “can not be taught through a few simple techniques but requires education that transforms the preservice teachers’ ways of knowing, their views about knowledge and the roles of teachers and students” (Ostorga, 2006, p. 19). Larrivee (1999, as cited in Larrivee, 2000) believes that in order to become reflective one must make time for reflection, become a problem-solver, and question the status quo. One important strategy in developing reflective practitioners is a reflective practicum defined by Schön (1987) as “a practicum aimed at helping students acquire the kinds of artistry essential to competence in the indeterminate zones of practice” (p. 18).

Teacher educators should explicitly teach reflection because “students do not automatically know what we mean by reflection; often they assume reflection is an introspective after-the-fact description of teaching” (Ward & McCotter, 2004, p. 255) (see also Dymont & O’Connell, 2010). Just telling preservice teachers to reflect is not sufficient; reflection should be modeled and guided (Loughran, 2002). This modeling and guiding can help preservice teachers reflect at the top of their potential within the zone of proximal development.

There are many practices that teacher education programs employ to develop reflective dispositions in teacher candidates. Practices in the literature include, but are not limited to: conducting action research, writing (journals, anecdotes, assertions about practice, personal histories and philosophical essays), participating in classroom discussions and projects, microteaching, setting goals, creating a growth portfolio, and coaching and conferencing after teaching a lesson (Bates, Ramirez, & Dirts, 2009; Loughran, 2002; McCaleb, Borko, & Arends, 1992; Shandomo, 2010; Valli, 1997).

Hatton and Smith (1995) designed a study “to investigate the nature of reflection in teaching, to define specific forms of reflection, and to evaluate the strategies...in terms of the degree to which they facilitated particular types of reflection in student teachers” (p. 40). Hatton and Smith were both the researchers and instructors for the student participants who were enrolled in the undergraduate secondary education degree at the University of Sydney. They conducted content analysis of written reports, self-evaluations, videotapes of microteaching, 20-minute interviews with pairs of students using structured questions and a “problematic practicum vignette” (p. 40). From this research they identified four types of writing: descriptive writing which is “not reflective at all, but merely reports events or literature” (p. 40), descriptive reflection which “does attempt to provide reasons based often on personal judgment or on students' reading of literature” (pp. 40-1), dialogic reflection which is “a form of discourse with one's self, an exploration of possible reasons” (p. 41), and critical reflection “defined as involving reason giving for decisions or events which takes account of the broader historical, social, and/or political contexts” (p. 41) (see Table 2). These four types of writing have been used in other research on teacher reflection (for one example see Whipp, 2003). Additionally, Hatton and Smith found that of the reflective units that they coded, 60-70% were descriptive reflection and there were only eight reports of critical reflection (p. 41). Another interesting finding was that dialogic reflection was often preceded by descriptive reflection, suggesting that descriptive reflection may be a precursor to dialogic reflection.

Table 2

Hatton and Smith's Criteria for the Recognition of Evidence for Different Types of Reflective Writing

Descriptive Writing	<ul style="list-style-type: none"> • <i>Not</i> reflective • Description of events that occurred/report of literature • No attempt to provide reasons/justification for events
Descriptive Reflection	<ul style="list-style-type: none"> • Reflective, not only a description of events but some attempt to provide reason justification for events or actions but in a reportive or descriptive way. For example, "I chose this problem solving activity because I believe that students should be active rather than passive learners." • Recognition of <i>alternate</i> viewpoints in the research and literature which are reported. For example, Tyler (1949), because of the assumptions on which his approach rests suggests that the curriculum process should begin with objectives. Yinger (1979), on the other hand argues that the "task" is the starting point. • Two forms: <ul style="list-style-type: none"> ○ (a) Reflection based generally on one perspective/factor as rationale. ○ (b) Reflection is based on the recognition of multiple factors and perspectives.
Dialogic Reflection	<ul style="list-style-type: none"> • Demonstrates a "stepping back" from the events/actions leading to a different level of mulling about, discourse with self and exploring the experience, events, and actions using qualities of judgments and possible alternatives for explaining and hypothesizing. Such reflection is analytical or/and integrative of factors and perspectives and may recognise inconsistencies in attempting to provide rationales and critique, for example, "While I had planned to use mainly written text materials I became aware very quickly that a number of students did not respond to these. Thinking about this now there may have been several reasons for this. A number of students, while reasonably proficient in English, even though they had been NESB learners, may still have lacked some confidence in handling the level of language in the text. Alternatively, a number of students may have been visual and tactile learners. In any case I found that I had to employ more concrete activities in my teaching." Two forms, as in (a) and (b) above.
Critical Reflection	<ul style="list-style-type: none"> • Demonstrates an awareness that actions and events are not only located in, and explicable by, reference to multiple perspectives but are located in, and influenced by multiple historical, and socio-political contexts. For example, "What must be recognized, however, is that the issues of student management experienced with this class can only be understood within the wider structural locations of power relationships established between teachers and students in schools as social institution based upon the principle of control" (Smith, 1992).

(Hatton & Smith, 1995, pp. 48-49)

In the literature there has been much debate over hierarchical levels of reflection versus models of reflection in which categories are non-hierarchical (see Valli, 1992). Hatton and Smith (1995) believe that the order in which the categories of reflection are presented represent a “developmental sequence” (p. 46) in which preservice teachers are first able to write descriptive reflection and as the preservice teachers develop they are better able to write dialogic and then critical reflection. Based on the body of literature surrounding the benefits of preservice teacher development and reflection, I believe dialogic and critical reflection are more desirable categories of reflection for preservice teachers than descriptive reflection. Dialogic and critical reflection represent the complexities of teaching and the greater societal context that are important for preservice teachers to consider. In addition, dialogic and critical reflection help interns complete three of the five central tasks to learning to teach at the preservice level as identified by Feimen-Nemser (2001): “examine beliefs critically in relation to vision of good teaching,” “develop an understanding of learners, learning, and issues of diversity,” and “develop the tools and dispositions to study teaching” (p. 1050).

Whipp (2003) applied Hatton and Smith’s (1995) types of reflection in her study. She examined the use of scaffolding to encourage critical reflection with teacher education students in email discussions throughout the semester. She studied two groups of her students for one semester each. The first group of students did not receive any special treatment. The second group of students were encouraged by the professor/researcher to use class readings in their responses, the professor/researcher posed critical questions to the group, the professor/researcher periodically summarized online postings around critical questions and distributed this to the students, and the

professor/researcher gave students a grading rubric which included “entry considers political and/or social issues embedded in situation or problem” (Whipp, 2003, p. 327). Using Hatton and Smith’s (1995) categories of unreflective (called descriptive writing by Hatton and Smith), descriptive reflection, dialogic reflection, and critical reflection, Whipp classified the postings from both semesters of the study. She found that in the first semester 1% of the postings were at the critical level and 11% were at the dialogic level. In the second semester, when the students were provided scaffolding, 11% of the responses were critical reflection and 28% were dialogic reflection. There was a significant increase in the percent of critical and dialogic reflections in the second semester. This study shows that with modeling and guidance students are more likely to reach dialogic and critical reflection. The modeling and guidance of an outsider (teacher) changing the type of student reflection is an example of sociocultural theory. A limitation of this study is that there were different students in each class studied and the second group was much more diverse, making it possible that the students were better able to question each others’ assumptions.

There is also evidence that different assignment structures generate different types of preservice teacher reflection. Sewall (2009) pursued an answer to the research question: “How do video-elicited reflective debriefings contribute to the reflective communication of novice teachers?” (p. 14). She used a convenience sample of eight preservice teachers completing their California secondary English credentials in one teacher education program (p.15). Each participant had one Observation Based Debrief (OBD) and one Video Elicited Reflection (VER) with their supervisor. The data included the audiotaped debriefs, field notes, and pre- and post-interviews (p. 15). One finding is

that “OBD as implemented in the study actually appeared to promote more reflective communication *on the part of the supervisor* than for the novice teacher. In VER, the reverse is true” (p.17). Sewall also found that “VER, as carried out in this study, greatly increased the opportunities for NTs [novice teachers] to communicate their reflective thoughts while also promoting more depth and breadth in the type of reflective comments they made” (p. 19). One reason for this may be in the OBD the supervisor creates and “owns” the notes by nature of the authorship, where in the VER the new teacher “owns” the video because they are sharing it with the supervisor for the first time in the conversation. This research is significant because in VER:

With little prompting, the NTs [novice teachers] verbalized their thoughts freely and at length, often making connections to outside topics or issues, such as course readings or experiences, instructional strategies, and personal philosophies. They also offered ample commentary reflecting upon pedagogical decisions outside of the lesson as well as those included on the videotaped lesson segment itself. (p. 20)

This reflection with the VER seemed to have more possibilities of reaching critical reflection than the OBD.

In addition to scaffolding and assignment structure, topics of reflection may trigger different levels of preservice teacher reflection. Nagle (2009) used levels of reflection to analyze the reflective practice of nine preservice teachers through their entries for the Vermont Licensure Portfolio. The research questions were:

1. What are preservice teachers’ beliefs about teaching and learning?
2. How did preservice teachers reflect on their teaching beliefs as they examined

their teaching practice in the portfolio?

3. At what level (factual, procedural, justificatory, and critical) did preservice teachers reflect? (p. 79)

Like Dinkelman (2000), the Nagle was the researcher and professor for the students' methods class. The preservice teachers were all Caucasian and from middle class backgrounds and they taught in a variety of schools. Two limitations of the study are the small and limited population sample and the lack of separation between researcher and professor roles. In the study, 40% of the reflections were factual, 27% procedural, 19% justificatory, and 14% critical. The critical reflections were more likely than others "to question school policies and procedures, the curriculum, and their cooperating teacher's [*sic*] norm of teaching for the sake of advocating for a group of students or for an individual student" (Nagle, 2009, p. 83). Nagle (2009) also found that "in cases where preservice teachers' beliefs centered on student learning, their reflections did move toward a more critical stance" (p. 85). These results suggest that by encouraging preservice teachers to focus on student learning, teacher educators can help move preservice teachers towards critical reflection.

Preservice teacher reflection is an area worth further exploration because some researchers (see Giovanelli, 2003) have found a correlational relationship between reflection and effective teaching behaviors. Giovanelli (2003) conducted a post-positivist study to "determine if a relationship exists between teacher candidates' reflective disposition toward teaching and the extent to which they exhibited effective teaching behaviors in the classroom" (p. 293). The researcher used a convenience sample of elementary education undergraduate students in their final semester of coursework.

The 55 students were all from a public university in the Midwest. The main research question was “Do elementary education undergraduate teacher education candidates who exhibit a reflective disposition toward teaching also exhibit effective teaching behaviors as perceived by their university field instructors” (Giovannelli, 2003, p. 293)? Two instruments were used to collect data: a teacher candidate survey (completed by preservice teachers) and survey of teacher reflectiveness (completed by field supervisors). Giovannelli concluded that her findings support the research hypothesis, specifically:

These significant relationships suggest that the more the reflection among teacher candidates, the more effective their teaching is judged. Moreover, these relationships suggest that the more teacher candidates reflect about what a teacher should know and be able to do and the more they reflect about what teaching is, the more effective their teaching is. (Giovannelli, 2003, p. 303)

It is important to note that the relationships tested were correlational, not causal, even though the author implied that with more reflection a teacher can become more effective. Recognizing that the sample population was very limited, Giovannelli suggested, “researchers should attempt to replicate this finding and to determine the extent to which it can be generalized to other types of teacher education programs” (p. 307).

There is also evidence that reflection during the preservice experience persists into the first years of teaching. Kagan (1992) believes the developmental tasks of teaching develop during student teaching and continue through the first year teaching. In her review of the research, Yost (2006) found:

There has been some promising research that suggests that novice teachers will use critical reflection as a problem-solving tool if educated to think in that way

(Dieker & Monda-Amaya, 1997; Hatton & Smith, 1995; Pultorak, 1996; Sparks-Langer, Simmons, Pasch, Colton, & Starko, 1991; Yost, Sentner, & Forlenza-Bailey, 2000; Zeichner & Liston, 1987). In fact, a study has shown that using critical reflection throughout the teacher education experience has resulted in a marked ability of first year teachers to reflect on critical levels (Yost, 1997; Yost Forlenza-Bailey, & Shaw, 1999). (p. 62)

Based on her research, Yost believes that critical reflection in teacher education is a step in developing a reflective teaching force.

The existing research justifies the continued study of preservice teacher reflection. Dinkelman (2000) concluded that critical reflection is a reasonable goal of teacher education. Rovegno (1992) alerted teacher educators to focus on student epistemology, because unless the student is open to learning from experience they will not engage in true reflection. Hatton and Smith (1995) served the field by identifying four types of writing and finding that dialogic reflection is often preceded by descriptive reflection. Whipp (2003) used Hatton and Smith's types of writing and found that students were more likely to reach dialogic and critical reflection with modeling and guidance from the instructor. Sewall (2009) showed that assignment type and design can influence the type of reflection. By analyzing written reflection, Nagle (2009) found that when preservice teachers focus on student learning they are more likely to reflect at the critical type. Finally, there is a significant relationship between the reflective disposition and effective teaching behaviors (Giovannelli, 2003). Table A1 in Appendix A summarizes the studies discussed above.

A gap in the current body of research on preservice teacher reflection is research

that simultaneously considers assignment structure, topic, category of reflection, and intern characteristics. To contribute to this gap, the current study, using sociocultural theory as a framework along with case study and content analysis methodologies, will examine the categories of reflection in written assignments during the full-time internship semester and the trends over assignments, topics, time, and/or interns that may relate to dialogic and critical reflection. The study is further described in chapter 3.

Role of “others” in teacher reflection.

The role of “others” is of key importance in teacher reflection (Bates, Ramirez, & Dirts, 2009; Hatton & Smith, 1995; Loughran, 2006; Valli, 1997). Dewey “recognized that having to express oneself to others, so that others truly understand one’s ideas, reveals both the strengths and the holes in one’s thinking” (Rodgers, 2002, p. 856), thus advancing the thinking. Based on Dewey’s ideas, reflecting collaboratively helps teachers with

1) affirmation of the value of one’s experience: In isolation what matters can be too easily dismissed as unimportant; 2) seeing things ‘newly’: Others offer alternative meanings, broadening the field of understanding; 3) support to engage in the process of inquiry: The self-discipline required for the kind of reflection that Dewey advocates, especially given the overwhelming demands of a teacher’s day, is difficult to sustain alone. When one is accountable to a group, one feels a responsibility toward others that is more compelling than the responsibility we feel to ourselves. (Rodgers, 2002, p. 857)

The “others” involved in reflection can be teacher educators, coaches, university supervisors, mentor teachers, or peers. The impact of the “others” can be seen through

conversations or assignments created for the interns.

Teacher educators can provide structure to increase learning. Reflection needs to be modeled for teacher candidates (Loughran, 2006), which is a natural role for teacher educators. It is important to note “the manners in which teacher educators structure learning relate to the patterns of reflection that occur” (Lin & Lucey, 2010, p. 51). Whipp (2003) concluded that with structure and guidance students reflect at higher levels than without explicit instructor structure and guidance. Darling-Hammond (2006) identified powerful teacher education programs and some of the commonalities amongst the programs were continuous opportunities for reflection on learning and ongoing feedback on the reflection from instructors.

One program in particular that has a programmatic focus on reflection is the Elementary Education Program at the University of Wisconsin, Madison. Zeichner and Liston (1987) explained program, as “a program oriented toward the goals of reflective teaching, greater teacher autonomy, and increasing democratic participation in systems of educational governance” (p. 23). In addition to describing structural supports designed to meet the program goals, Zeichner and Liston summarized findings of studies concerning aspects of the Wisconsin program. Studies of the Wisconsin program show that despite attempts to meet program goals, “some of our goals are achieved rather well, others are only partially achieved, and still others appear to be neglected in practice” (Zeichner & Liston, p. 45). In addition to programmatic focus, the focus of university supervisors impacts the experience and development of preservice teachers.

University supervisors play an important, and unique, role with preservice teachers during the internship semester by setting the tone for expectations and post-

observation reflection. May and Zimpher (1986) examined three theoretical perspectives on supervision: positivism, phenomenology, and critical theory, and the ways in which the theoretical perspective can influence the practice of supervision. The implication of supervisors varying theoretical orientations is drastically different experiences for interns, including the focus of post-observation conferences and the relational dynamic between interns and supervisors. Bates, Ramirez, and Dirts (2009) and DInkelman (2000) examined the impact of supervisors on preservice teacher reflection. Supervisors can promote reflection “in students through both explicit instruction and through modeling” (Bates, Ramirez, & Dirts, 2009, p. 90). Dinkelman (2000) found that participants were more motivated to reflect critically when their supervisor was attentive to critically reflective issues. This suggests that supervisors have the ability to shape the frames with which preservice teachers reflect. Jacobs (2006) identifies:

The role of the supervisor for social justice is to guide or coach the preservice teacher through the process of critical reflection. Fostering critical reflection involves helping preservice teachers look closely at themselves through examining their specific teaching context and requires modeling by a skilled supervisor. (p. 31)

The supervisor needs to initially guide the reflection with questions and gradually move to a listener role as the intern takes over the responsibility for generating reflection (Bates, Ramirez, & Dirts, 2009).

Mentor teachers have daily contact with preservice teachers and thus they have many opportunities to model reflection and reflect with the preservice teacher.

Calderhead (1992) stressed the need for reflective schools and mentor teachers to develop

reflective teachers, as this will provide reflective models for preservice teachers are in their internship semesters. Harrison and Lee (2011) asserted “There is clearly a significant role for the teacher-mentors in assisting this process towards deeper reflection on practice” (p. 212). As administrators of teacher education programs make internship placements they should consider the potential positive impact of a reflective mentor teacher on supporting the growth of a reflective preservice teacher.

Preservice teachers can also develop their reflective abilities in the presence of peers. Hammerness et al. (2005) found that in peer groups “Both the feedback and the collegial natures of the process appear to stimulate reflection and greater skill development” (p. 380). This is also a relationship that can transcend the preservice teaching experience as new teachers typically have more access to other teachers than to a mentor, coach, or supervisor.

There is a need for more research in the role of others in developing reflective practitioners because “despite the proliferation of research in this area, very little is understood of how critical reflection in preservice teachers is fostered, especially by university supervisors and mentors” (Bates, Ramirez, & Dirts, 2009, p. 93). Sociocultural theory is one theoretical framework that can be used to explore the role of others on preservice teacher reflection. The current study will investigate the role of others via assignments created by college faculty.

Chapter 3: Methodology and Study Design

Overview

Case study and content analysis are the most appropriate methodologies to address the research questions in this study. Yin (2006) explains that case study is best when “research addresses either a descriptive question (*what* happened?) or an explanatory question (*how* or *why* did something happen?)” (p. 112). Content analysis is helpful for examining trends and patterns in or across data (Stemler, 2001). This chapter identifies the primary methodological approaches used within the research on teacher reflection. Then, it identifies the affordances and constraints within and across the methodologies to inform the current study. This chapter concludes by describing the methodology and design of the current research study.

Methodology Within the Field

This section identifies the most common methodological approaches used within the research on teacher reflection and identifies the affordances and constraints within and across the methodologies. The search of the research is limited from 1990 to the present in order to best understand the recent history of the research. The primary methodological approaches in teacher reflection since 1990 have been case study, content analysis, discourse analysis, and grounded theory. The following sections will first detail how these primary approaches were identified using ERIC and then examine the two predominant methodologies, case study and content analysis, by examining several studies and explaining the affordances and constraints of each. These sections will conclude with the affordances and constraints across the methodologies.

ERIC search.

I used ERIC to identify the primary methodological approaches in teacher reflection. First, I identified the relevant descriptor words from the ERIC thesaurus: “teacher reflection” and “reflective teaching.” Next, I conducted a search of peer-reviewed publications from 1990-2011 using these descriptors and there were 1159 results. Of the results, only four were from 1990-1999 compared to 1093 from 2000-2010 and 62 in the first half of 2011. This is evidence of the rising popularity of “teacher reflection” and “reflective teaching” in the research since 2000. To focus on the methodological approaches, I limited the search to the ERIC search phrase “research reports” and was left with 401 items. Table 3 shows the number of articles for each methodology search and the years over which the articles were published. The only trend evident based on the year is all of the studies were published between 2004 and 2011. Case studies were the dominant methodology that appeared in the search followed by content analysis, discourse analysis, and grounded theory.

Table 3

ERIC Search for Peer Reviewed Research Reports from 1990-2011

Search Descriptors	#	Years
“reflective teaching” or “teacher reflection” and “Case study” or “Case studies”	57	2004-2011
“reflective teaching” or “teacher reflection” and “content analysis”	19	2004-2011
“reflective teaching” or “teacher reflection” and “discourse analysis”	15	2004-2011
“reflective teaching” or “teacher reflection” and “grounded theory”	11	2004-2010
“reflective teaching” or “teacher reflection” and phenomenology	7	2004-2010
“reflective teaching” or “teacher reflection” and ethnography	3	2005-2010
“reflective teaching” or “teacher reflection” and hermeneutics	2	2006-2010
“reflective teaching” or “teacher reflection” and “hypothesis testing”	2	2008
“reflective teaching” or “teacher reflection” and experiment	1 ^a	2006

Note: ^aIn this article the word “experiment” referred to an experiment done in prior research, not the methodology of the given study

Since case studies were so much more prevalent than the other methodologies I further examined the phenomenon. I examined the overlap of case studies with the other methodologies (see Table 4). There were only eight articles that used both case study/studies and the other methodology in the descriptors, therefore, overlap does not account for the high number of case studies. Upon reading some of the articles I found that some used case study/studies as a teaching technique and not a research methodology. Although the number of case studies is slightly skewed because of overlap in

methodologies and case study assignments, it is still the predominant research methodology in teacher reflection in the ERIC searches I conducted.

Table 4

Overlap of Descriptors in ERIC Search for Peer Reviewed Research Reports from 1990-2011

Search Descriptors	#	Years
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND “ content analysis ”	1	2006
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND “ discourse analysis ”	2	2005, 2011
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND “ grounded theory ”	4	2005-2010
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND phenomenology	1	2009
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND ethnography	0	
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND hermeneutics	0	
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND “ hypothesis testing ”	0	
“reflective teaching” or “Teacher reflection” AND “case study” or “case studies” AND experiment	0	

Case study overview.

Stake (1995) defined case study as “the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances” (p. xi).

This section will explain three case studies in chronological order: Dinkelman (2000),

Ostorga (2006) and Bates, Ramirez, and Drits (2009). These three cases were selected for inclusion because of their use of case study methodology and their potential to inform the current study. Then, similarities and differences among the three studies will be identified. Finally, the affordances and constraints of case study methodology for research on teacher reflection will be discussed.

Dinkelman (2000) conducted a case study of three preservice teachers during their fall methods course and spring student teaching semesters. Dinkelman was simultaneously the researcher, teacher instructing the social studies methods course, and field supervisor. He makes his positionality clear when he states: “my objective was to do more than merely understand a complex social phenomenon (preservice teachers learning critically reflective teaching). I also played an active role in influencing that phenomenon” (Dinkelman, 2000, p. 197). In this study Dinkelman sought to answer the research questions:

- (1) What was the extent and nature of the critical reflection and critically reflective teaching evident among three preservice teachers in the Methods and student teaching semesters of a research university secondary social studies teacher education program?
- (2) What factors hindered and supported my attempt to promote critically reflective teaching? (p. 196)

To select his participants, Dinkelman told his 14 methods students about the study and 12 volunteered to participate. From the volunteers he randomly selected 3 to be the participants. He collected a variety of data including semi-structured interviews at the beginning, middle, and end of the teaching semesters, four to six observations, field notes, and written artifacts that the student teachers produced as a part of their program. To

analyze the data Dinkelman used the constant comparative method. Dinkelman told the story of each participant with the themes that arose from the analysis. He included block quotes from the assignments and interviews to help tell the story and explain the themes. Dinkelman acknowledges, “the research raises more questions than it answers” (p. 221). Although he found a small amount of documented critical reflection, he contends the “continuation of their critical reflection across semesters is also encouraging” (p. 217).

Case study methodology allowed Dinkelman to accomplish both of his missions in the study:

Part of my mission with this study is to provide a descriptive account of a kind of teacher education about which not a lot is known; another part is to produce tentative hypotheses about the factors which influence preservice teacher critical reflection. (Dinkelman, 2000, p. 196)

Dinkelman believes that “reflective teaching cannot readily be assessed except through observations of teachers in practice and in-depth discussions with them about how they approach their work” (p. 196). The variety of data sources including the written artifacts, interviews, and observations allowed Dinkelman the opportunity to assess the reflective teaching.

Like Dinkelman, Ostorga (2006) was a participant observer in her multiple case study focused on two elementary education undergraduate teachers who also have jobs as paraprofessionals schools. She purposefully selected the cases for the article to represent a case with a high level of complexity and a comparison case. The research questions Ostorga examined in the study were:

1. What levels of reflection do preservice teachers who are instructional paraprofessionals exhibit in reflective journals?
2. How do the epistemological beliefs of preservice teachers who are instructional paraprofessionals relate to their level and quality of reflection as exhibited in reflective journals? (p. 11)

She examined epistemic stances using Baxter-Magolda's interview protocol and questionnaire. She also examined reflection in journals using Mezirow's Taxonomy of Reflective Thought. Ostorga was a participant observer since she was both the researcher and the university supervisor. As typical in case study research she "collected data from naturally occurring events" (p. 12), however, she withheld "analysis of data until after the term's coursework was completed and evaluated" (p. 12) in an attempt to separate her researcher and supervisor roles.

In the results section Ostorga (2006) presented a narrative of each case including block quotes. From her study, "it can be inferred from the analysis that the ways of knowing that are more complex lead to more frequency of reflective thinking and higher levels of reflectivity" (Ostorga, p. 17). She also found that "experience in the classroom did not seem to be a factor in the level of reflective thinking" (Ostorga, p. 17). In the conclusion, Ostorga acknowledges that the study is "limited in generalizability" (p. 18) which is a common critique of case study methodology. Ostorga's multiple case study is one example of purposefully selected participants, another example of purposeful selection is in Bates, Ramirez, and Drits (2009).

Bates, Ramirez, and Drits (2009) conducted a collective case study to examine:

(a) the role critical reflection plays in how a supervisor comes to know her own stance, (b) how critical reflection is expressed in the enactment of the supervisors' stances, and (c) the degree to which student teachers understand their supervisors' ideas about critical reflection. (p. 94)

There were three cases each composed of one university supervisor and four of her teacher education students. Students in each case were purposefully selected from two different teaching grades and two different schools to provide variation in the study population. The authors provided a description of each supervisor and her background experiences as well as an overview of the students involved in the study. Data was collected in the spring student teaching semester through non-participant observation methods. For each student, the team observed two to four conferences between the supervisor and student teacher, conducted two semi-structured interviews to search for changes and consistencies from the end of fall semester and end of spring semester, and collected supervisor artifacts including “weekly seminar agendas, lesson plans collected during observations, observation notes, weekly goal sheets, relevant e-mails, syllabi for courses supervisors teach to student teachers, and formative and summative evaluations” (Bates, Ramirez, & Drits, 2009, p. 98).

The three cases were analyzed separately and then the researchers looked across the cases to identify broader themes. For each case researchers identified broad categories in the data and then continued with a cyclical process of analyzing. Three main findings from the research are:

(a) an understanding of critical reflection is something that builds over time for student teachers through exposure to their supervisor's practice; (b) explicitly

modeling, guiding, and communicating the importance of critical reflection in teaching practice through supervisory stance helps teacher candidates develop critically reflective practices and understandings; (c) developing critical reflection in their individual and shared practices takes time for both parties. (Bates et al., 2009, p. 99)

Case studies were helpful in this research because “for the detailed investigation they allow and for the contributions of such investigation in both educational theory and practice (Stake, 2006; Yin, 2003)” (Bates et al., 2009, p. 94). Bates et al. acknowledge the limitation of single cases to advance the field, yet they believe that “analysis of each in context, followed by analysis of cases collectively, can lead to an increased understanding of and capacity for theorizing about the larger field of teacher education (Stake, 2005)” (p. 98).

There are similarities and differences among the case studies described above. Researcher positionality, research questions, data, and case definition are areas that require further exploration to determine the similarities and differences across the studies.

Researcher positionality varied among the studies. Dinkelman (2000) and Ostorga (2006) were both researchers and supervisors of the student teachers in the study. One difference between their approaches was Dinkelman took an active role in influencing the phenomenon and Ostorga took precautions to not influence the situation by refraining from analysis until the semester was over. Bates et al. (2009) were non-participant researchers.

Yin (2006) believes that case study is “...pertinent when your research addresses either a descriptive question (*what* happened?) or an explanatory question (*how* or *why*

did something happen?)” (p. 112). All of the studies discussed above did address descriptive or explanatory questions. Dinkelman and Ostorga presented questions with “what” and “how” stems. On the other hand, Bates et al. presented three goals of the research in sentence form instead of explicit questions.

One of the benefits of a case study “*is its ability to examine, in depth, a ‘case’ within its ‘real-life’ context*” (Yin, 2006, p. 111). The real-life context implies data collection in natural settings. All of the studies discussed collected multiple sources of data naturally through observations, field notes, and written artifacts. Each study also collected data through semi-structured interviews, which could be accused of being contrived. Ostorga went as far as to use a questionnaire and interview protocol to gather data to assess epistemic stance which goes well beyond collecting data beyond the natural setting.

All of the studies contained multiple cases, however, they each defined a case differently. Dinkelman and Ostorga defined a case as one student teacher. Bates et al. used the one supervisor and her four student teachers as a case. One explanation for the various definitions of a case is the level of focus. Bates et al. was interested in the supervisors’ impact on her students and the other authors were interested solely in the student teacher. Yin (2006) explains two benefits of multiple-case designs is to show the case is not unique and provide comparative data with which to analyze findings. The similarities among these studies help illuminate the affordances and constraints of the methodology.

Case study benefits and constraints.

Case study methodology lends itself to research on teacher reflection because of flexible researcher positionality, the type of research questions, and the depth of study. Within this methodology researchers can establish the positionality that best supports the study. Some researchers are also supervisors and some are non-participant observers. Within the researchers who participate some actively manipulate the setting (see Dinkelman, 2000) and others refrain from manipulating the setting (see Ostorga, 2006). In addition to flexible researcher positionality, case study research is well suited to answer descriptive or explanatory research questions (Yin, 2006). To answer these research questions, case study has the “*ability to examine, in depth, a ‘case’ within its ‘real-life’ context*” (Yin, 2006, p. 111). In-depth study is one of the hallmarks of case study methodology.

The real-life, or natural, setting can be seen as an affordance or a constraint depending on the research. Often research questions cannot be fully addressed by natural observation and the data needs to be supplemented with interviews or questionnaires (for examples see Dinkelman, 2000; Ostorga, 2006; Bates et al., 2009).

Two constraints of case study are generalizability and elements of design quality. Single case studies are limited in their ability to advance the field (Bates et al., 2009) because they focus on such a small population in a specific setting. Yin (2003) identified “four conditions related to design quality for case studies: (a) construct validity, (b) internal validity (for explanatory or causal case studies only), (c) external validity, and (d) reliability” (p. 19).

Content analysis overview.

Ostorga's (2006) case study described above is an example of the concurrent use of case study and content analysis methodologies. This section will detail two additional studies using content analysis methodology: Hatton and Smith (1995) and Amobi (2005). Like in the previous section, these studies were selected because of their use of content analysis and potential to inform the current study. Then discussion will shift to the similarities and differences of the studies. This section will conclude with the affordances and constraints of content analysis methodology.

Hatton and Smith (1995) were teacher researchers who designed a study "to investigate the nature of reflection in teaching, to define specific forms of reflection, and to evaluate the strategies...in terms of the degree to which they facilitated particular types of reflection in student teachers" (p. 40). Their research questions were:

- Have the strategies employed resulted in teacher education students demonstrating evidence of reflective practice?
- If so, what types and patterns of reflection can be identified, and what factors seem important in fostering their development?
- What strategies appear to be effective in producing reflection, and what are the salient characteristics of such approaches?
- How can more effective strategies be developed, and how can the conditions for encouraging reflective practice be improved?
- What is the fundamental nature of reflection, and does the nature of evidence change according to types of reflection? (Hatton & Smith, 1995, p. 39)

The study population consisted of students in the four-year secondary Bachelor of Education program at the University of Sydney. Hatton and Smith (1995) conducted content analysis of 4,000-6,000 word written reports, self-evaluations, videotapes of microteaching, and 20-minute pair interviews with structured questions and a “problematic practicum vignette” (p. 40). From this research Hatton and Smith identified four types of writing: descriptive writing which is “not reflective at all, but merely reports events or literature” (p. 40), descriptive reflection which “does attempt to provide reasons based often on personal judgment or on students' reading of literature” (pp. 40-1), dialogic reflection which is “a form of discourse with one's self, an exploration of possible reasons” (p. 41), and critical reflection “defined as involving reason giving for decisions or events which takes account of the broader historical, social, and/or political contexts” (p. 41).

The authors explained the members of the research team and their analysis process. The team consisted “of the two authors, a research assistant, and four third-year honours students” (Hatton & Smith, 1995, p. 41). Two team members independently read the essays to identify and categorize units of reflection and then compared their results. If there were differences, the readers discussed the issue to resolve the differences. It is not clear if the categories were developed prior to the coding or if they emerged from the data. The team also conducted content analysis of the other data. Their research shows evidence of reflection in the final year of a teacher education program and “the importance of having others to facilitate reflection” (Hatton & Smith, 1995, p. 41).

Amobi's (2005) study focused on the impact of microteaching videotapes and peer feedback on reflection. The sample was 31 predominantly Caucasian college juniors

in the first-semester of their secondary education preservice program (Amobi, 2005).

There were three research questions in this study:

1. What are the recurring themes of reflectivity in the participants' sequencing of their teaching actions before and after microteaching?
2. What are the recurring themes in the participants' *confronting* reflectivity of peers' evaluations of their microteaching performance?
3. What effect did differential patterns of confronting reflectivity have on the participants' transition to *reconstructing* reflectivity? (Amobi, 2005, pp. 116-7)

For each participant the data consisted of a one to two page written postanalysis reflection and four to five structured peer feedback forms. The postanalysis reflection was supposed to address the questions “(a) what did I intend to do in this lesson? (b) what did I do? (include strengths and weaknesses), and (c) what would I do differently if I were to teach the lesson again” (Amobi, 2005, p. 117)? To analyze the data Amobi (2005) read the written reflections “repeatedly until themes of participants' reflectivity related to pre and post microteaching sequencing of teaching actions began to emerge” (p. 119). Amobi used occurrence matrices to visually display the data.

From the data analysis Amobi (2005) identified “four recurring themes of describing reflectivity, four themes of informing reflectivity, four patterns of confronting and three patterns of reconstructing reflectivity among the participants in the study” (p. 123). Amobi found “the positive relationship between conforming and reconstructing reflectivity was confirmed in the present study” (p. 127).

There are similarities and differences across the studies in the areas of research questions, data collection, and data analysis. In content analysis research questions “are

believed to be answerable (abductively inferable) by examinations of a body of texts” (Krippendorff, 2004, pp. 32-33). Both Amobi (2005) and Hatton and Smith (1995) were searching for evidence of reflection in their data. Amobi was seeking themes of reflectivity. Hatton and Smith were in search of evidence of reflective practice.

In both of the above studies data collection was relatively unobtrusive. Amobi (2005) relied solely on written reflections and feedback forms that were completed for course assignments. Hatton and Smith also used course assignments as data sources in addition to interviews with pairs of students.

Once the data was collected, the coding process was different in the two studies. Content analysis “is a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding” (Stemler, 2001). Amobi (2005) used emergent coding in which “categories are established following some preliminary examination of the data” (Stemler, 2001). Amobi was the sole researcher coding the data. On the other hand, in Hatton and Smith’s (1995) study two members of the research team independently coded the writing samples and discussed any differences. This difference in the coding process may be a result of the size of the research teams for each study. Hatton and Smith had a seven person research team and outlined their process for coding and comparing results across research team members. Amobi appears to have analyzed data alone and therefore did not outline the process for checking the consistency of codes. Although there were some slight differences, Hatton and Smith and Amobi were relatively similar in their application of content analysis methodology.

Content analysis benefits and constraints.

Content analysis is “useful for examining trends and patterns in documents” (Stemler, 2001) and it was the second most frequent methodology in the ERIC search I conducted. The affordances of content analysis are the unobtrusive process, importance of context, and systematic coding. Since content analysis typically uses data that is already produced it is unobtrusive to the subjects and does not risk interaction effect (Krippendorff, 2004). Content analysis is also a context sensitive technique (Krippendorff, 2004). In content analysis coding is a systematic process. Codes can be emergent or a priori based on a theory (Stemler, 2001). In research content analysis is particularly useful if there is a need to be unobtrusive, rely on context, or use systematic coding.

The main constraint of content analysis is the analysis usually takes place after the data are generated (Krippendorff, 2004). This becomes problematic if the information needed to answer the research questions is unavailable. In some cases it is possible to collect additional information from participants; however, the collection of additional data conflicts with the affordance of unobtrusive data collection and could result in an interaction effect.

Affordances and constraints across the methodologies.

To identify the affordances and constraints across case study and content analysis methodologies this section will first examine the similarities across the methodologies. Practitioner research can cross both of the methodologies; however, in the studies examined for this chapter there were only examples of practitioner research with case study methodology. The methods of field observation (both participant and non-participant) and interviews crossed the methodologies. In all of the studies data was

collected in natural settings and in some instances it was supplemented with interviews and questionnaires. The interviews and questionnaires allowed the researchers to focus in on some aspect of the research question that they otherwise would not be able to answer or allowed for data triangulation. Even though the studies used different methodologies they had similarities in methods, data collection, role of context, and presentation of the findings.

Despite the similarities across the studies, different methodologies are better suited to different research questions. Yin (2006) explains that case study is best when “research addresses either a descriptive question (*what* happened?) or an explanatory question (*how* or *why* did something happen?)” (p. 112). Content analysis is helpful for examining trends and patterns (Stemler, 2001). In some of the content analysis studies the data was collected after it was produced for other reasons (course assignments, lesson plan database, journal articles) making the collection unobtrusive and decreasing the likelihood of interaction effect. Within one area of study, such as preservice teacher reflection, different research questions are complemented by different methodologies and sometimes simultaneously using multiple methodologies is beneficial. For example, Ostorga (2006) used both case study and content analysis.

There are also constraints that are consistent across case study and content analysis methodologies. Both of these methodologies involve labor-intensive data analysis. Although there are some computer programs designed to assist in the analysis, the process limits the amount of data that can be used in either of the methodologies.

The above sections began by identifying the two most prevalent research methodologies in the field of teacher reflection: case study and content analysis. This

process helped identify the most appropriate methodologies for the current study. For the present study, it is best to simultaneously use both case study and content analysis methodologies. The descriptive and explanatory research questions are well suited for case study (Yin, 2006). The case here is one of preservice teacher written reflection at one institution of higher education. Within that case, this study is looking for trends and patterns in the data, which is best suited by content analysis (Stemler, 2001). The current study adds to the research literature by building on the methodological traditions of case study and content analysis. Now that the empirical literature has been used to identify the methodologies for the current study, the following sections will revisit the research questions and provide details for the current study.

Research Questions

In order to further the field of preservice teacher education in relation to teacher reflection and to better understand the phenomenon, this exploratory study seeks to answer the following research questions:

1. What categories of preservice teacher reflection are revealed by internship assignments?
2. For each assignment, are there patterns revealed in the dialogic and critical reflection? If so, what are the patterns?
3. What topics are present in writing for various categories of reflection?
4. Are there trends in the categories of reflection over time? If so, what are the trends?
5. Are there patterns within and across individual interns' reflection? If so, what are the patterns?

Study Design

The purpose of this study is to further explore the phenomena of preservice teacher reflection at one institution. In order to address the gap in the research, this exploratory study looks at preservice teacher reflection along with information about interns, topics of writing, and assignment descriptions.

The data that were collected are the written assignments participants completed during the internship (daily journals, monthly lesson reflections, professional development plan reflection, and a cumulative portfolio) and a questionnaire completed after the conclusion of the internship. One benefit of the design was most of the artifacts analyzed were created for a different purpose (course assignments) so the majority of data collection was non-obtrusive and did not risk an interaction effect. The questionnaire accessed some of the participants' prior learning, dispositions, definitions of reflection, and perceptions about the assignments. Additionally, the questionnaire was useful for identifying intern characteristics that may influence reflection.

There are assumptions within and limitations of the study that must be explored. An implied assumption is that written reflection impacts teaching practice. Although evidence does not directly support this assumption, preservice teacher written reflection is an area worthy of study because of the emphasis on written reflection within teacher preparation programs. A second area needing discussion stems from research question 2, "For each assignment, are there patterns revealed in the dialogic and critical reflection? If so, what are the patterns?" This research question implies that dialogic and critical reflection are more desirable than descriptive writing and descriptive reflection. Prior research using the Hatton and Smith (1995) types of writing framework has found that

descriptive reflection is more common in preservice teacher writing than dialogic reflection and critical reflection (see Hatton & Smith, 1995; Whipp, 2003). Building from the prior research in the field, this study seeks to further examine dialogic and critical reflection in preservice teacher writing. A limitation in the current study is the focus on written reflection. It is very likely that interns reflect in other ways, such as orally with a group or through quiet personal thought, and those reflections are not considered in the current study.

Study Setting

The study site is a small, private, liberal-arts college in the Mid-Atlantic region. The primary reason this site was selected was for its program objective surrounding reflection and programmatic emphasis on reflection. An explicit objective of the internship semester is for interns to “engage in analysis, problem-solving, and reflection related to the growth and development of education in the United States” (Castor College, 2010, p. I-2). Beyond this stated objective, reflection is required in many assignments throughout the education program. Beginning with the first courses in the education program students participate in field work in elementary or secondary schools and write weekly reflection papers on their experiences. During the internship semester, the term “reflection” is used in many of the assignment titles and/or assignment descriptions. In addition to the focus on reflection, the program structure and institutional commitment to social justice and study abroad had implications for this study. The education program is designed so interns pursuing secondary, elementary, and special education certification complete the same assignments during the internship allowing a unique opportunity to compare intern written reflection across programs. Many of the assignments explicitly

use the term “reflection” in the title or description (although this study examined the extent to which the reflection is actualized in intern work). The site has an institutional commitment to social justice and study abroad. I hypothesize that the institutional focus on social justice may encourage dialogic or critical reflection. Every student in the college is required to study abroad for an intensive course abroad (typically three weeks) or a semester abroad. Some of these study abroad experiences have specific social justice or education foci. The study site, therefore, although limited in size, provided a rich case for the study of preservice teacher reflection during the internship semester.

Participants

Participants were invited into the study based on their enrollment in the full-time teaching internship at the study site during the Fall 2011 semester. All 15 interns who completed the internship during the Fall 2011 semester were invited to participate, of which seven interns completed participation in the study.

All seven participants were female and 21 or 22 years old in the April following their fall full-time internship. On the questionnaire all of the participants except one self-identified as Non-Hispanic White or Caucasian. The one participant, Christine, identified herself as Hispanic. All participants graduated from the study site in May 2012.

Participants represented the elementary, secondary, and special education programs and had a variety of majors and minors. Undergraduate grade point averages varied for participants. Table 5 identifies each participants education program, level of placement (elementary, middle, or high school), college major, college minor, GPA range, and if the intern studied abroad.

Table 5

Participant Information

Pseudonym	Education Program	Level of internship placement	College Major	College Minor	GPA Range	Study Abroad
Abaigeal	Elementary Education	Elementary School	Elementary Education	Women's Studies	3.5-3.74	No
Beverly	Elementary Education	Elementary School	Elementary Education	Peace Studies	3.5-3.74	Yes
Christine	Secondary Education	Middle School Grades within an Elementary/Middle School	Spanish		3.75-4.0	Yes
Dana	Special Education	Elementary School	Special Education		3.75-4.0	Yes
Eva	Secondary Education	High School	Chemistry		2.75-2.99	Yes
Fay	Elementary Education	Elementary School	Elementary Education	Spanish	3.0-3.24	No
Gaby	Elementary Education	Elementary School	Elementary Education	Art	3.0-3.24	Yes

Researcher Positionality

I am both a graduate of the program and a part-time visiting instructor within the education department at the study site. I do not teach, nor have I ever taught, the cohort who interned in the Fall 2011 semester. I did not have any contact with the participants before emailing them to request their participation in the study. A benefit of this role is the level of objectivity about specific participants that I will bring to the data analysis. This study is building on the current body of research in the field because I deliberately acted as a non-participant observer and other research was conducted by participant-observers (see Dinkelman, 2000 and Ostorga, 2006). A limitation of my lack of

participation is that I am unaware of the other messages participants have received from college and internship site faculty since I was not privy to those interactions.

As both an alumna and instructor in the program I have a vested interest in learning how to better facilitate dialogic and critical reflection among the teacher candidates graduating from the institution, however, I undertook safeguards to distance myself from the participants professionally and to ensure trustworthiness in the data analysis. Professionally, I did not teach the participants and I refrained from talking to colleagues about the cohort of interns who interned in the Fall 2011. I also did not attend departmental social activities where the participants may have been present. I only interacted with the participants for the purposes of data collection for this study. As a researcher I ensured trustworthiness in my findings by coding the data two times, triangulating my findings, using thick description in my reporting, and using a critical friend throughout the data analysis process (Creswell, 2003; Yin, 2003) (see section on Data Analysis for more details).

Data

Data included the program handbook, participant written assignments, and participant questionnaires. The handbook contains internship objectives and descriptions of assignments, which helped me understand the program expectations of interns' written assignments. As a document that is shared among teacher interns, mentor teachers, college supervisors, and teacher educators this should represent the polished vision for the program.

Each participant was also asked to provide copies of their internship assignments that use the term "reflection" in the title or description, including:

- Daily reflective journal (program expectation is 1 journal/day)
- Cumulative portfolio
- September, October, November and December lesson plan reflections
- September, October, and November video reflections
- Professional development plan (PDP) with reflection on his/her success achieving the goals

Assignments were selected for inclusion for several reasons. First, they represent “data that are thoughtful, in that participants have given attention to compiling” (Creswell, 2003, p.187). Secondly, these documents capture the participants’ voice over time (created from August through December of 2011) (Creswell, 2003). Finally, a benefit of the assignment collection is the unobtrusive process (Creswell, 2003)—each assignment was completed as part of the program requirements and therefore not requiring additional work on behalf of the participants for the purposes of research.

The internship handbook describes the requirements for the daily journal and provides two examples. The description is as follows:

Reflection Journal. Interns must keep a journal throughout their internship, spending five to ten minutes at the end of each day reflecting and integrating the day’s events. The reflective journal is not a diary of complaints or listing of events. It is to reflect, which is a multifaceted process, directing thinking inwards in order to analyze classroom events and circumstances. ***To become an effective teacher, it is not enough to recognize and talk about what happens in the classroom. It is imperative to also understand the “whys,” “hows,” and “what ifs,” in the room.*** This understanding comes through the consistent practice of

reflective thinking. **The journal should be available for the PDS and [Castor] College Supervisor to review during observation visits and may be shared during the exit conference.** All entries should be dated. Below are two examples of thoughtful reflection journal entries. (Castor College, 2010, p. I-13)

The two sample journal entries in the handbook include descriptive writing and descriptive reflection. The topics cover student needs, relationships between students, role of teacher, and intern emotions. Based on these models I would expect the majority of journal entries to be descriptive writing and descriptive reflection.

The portfolio is a tool to share “with the PDS and college supervisor in the **final exit conference**” (Emphasis original, Castor College, 2010, p. I-17). The handbook goes on to describe:

The portfolio is an edited collection of materials that provide a framework for demonstrating knowledge, understanding, experiences, and processes for learning. The purpose of the portfolio is to provide a personal tool for reflecting upon skills, knowledge, and understanding. The portfolio should be organized in a way to document evidence of effective teaching and should include the *Effective Intern Evaluation Standards*. **The following sections are required: (See part III M and N for Effective Intern Evaluation Standards.)**

- 1) Planning shows content knowledge and developmental and diverse nature of students.
- 2) Management of student behavior maximizes a positive learning environment.

- 3) Instructional practices compliment [*sic*] student needs and encourage problem solving and critical thinking.
- 4) Assessment evaluates instruction and student learning.
- 5) Professionalism and interpersonal relationships maintained. (Castor College, 2010, p. I-17)

There are four associated rubrics for the portfolio. The rubric titled “insight and reflection” explains high performance is “In depth and critical reflections are included throughout the portfolio” (Castor College, 2010, p. I-19), however, there is no definition of critical reflection.

The task to “document evidence of effective teaching” (Castor College, 2010, p. I-17) based on the given standards may be best met through explaining what happened in the classroom (descriptive writing) and why it happened (descriptive reflection). There are no openings for dialogic or critical reflection within the prompt. Based on the five required sections anticipatory topic codes include lesson planning and implementing, student needs, student/teacher relationship, act of teaching, student learning, and role of the teacher.

The monthly lesson reflections are also outlined in the Internship Handbook which specifies that each month, September through December, interns should “plan, teach, and reflect on a lesson” (Castor College, 2010, p. II-19). The October and November directions include a specific focus for the lesson plan; October there is a focus on declarative and procedural knowledge/DOL 2 and November there is a focus on extending and refining knowledge/DOL 3. In addition to planning, teaching, and reflecting on the lesson, interns are to videotape the lessons in September, October, and

November and reflect on DOL 1, 2, and 3 respectively. In September interns are to watch the video and complete a behavior management checklist and then “write a brief summary of (a) ways in which you used Dimension 1 and (b) ways to improve your use of Dimension 1” (Castor College, p. II-19). In the October video reflection interns are directed to “discuss specifically how you adapted the steps in DOL 2, and write a reflection on the effectiveness of your adaptations in addressing the learners’ stages of development and in meeting individual and group needs” (Castor College, p. II-21). In the final video reflection interns should “discuss specifically how you adapted DOL and write a reflection on the effectiveness of your adaptations in meeting your students’ special learning needs” (Castor College, p. II-23). Based on the assignment descriptions for the monthly lesson reflections, I expect to see evidence of descriptive writing, descriptive reflection, and dialogic reflection revealed in the assignments. Interns probably use descriptive writing to respond to parts of the prompt like “write a brief summary of (a) ways in which you used Dimension 1” (Castor College, p. II-19). Descriptive reflection may help interns reflect “on the effectiveness of your adaptations in addressing the learners’ stages of development and in meeting individual and group needs” (Castor College, p. II-21). Finally, because interns are watching a video and reflecting on their teaching, giving them an opportunity to step back and see the situation from a different perspective, dialogic reflection may be used to help answer prompts like “ways to improve your use of Dimension 1” (Castor College, p. II-19).

The Professional Development Plan Reflection is described in two places within the Internship Handbook. First, the PDP is introduced and it specifies, “At the conclusion of the internship, the intern will reflect on his/her successes on having achieved the

respective goals or the progress towards meeting these goals” (Castor College, 2010, p. I-13). Then, in the December Specific Activities there are additional directions for the assignment “Write a reflection on your student teaching placement. [See II p. 14 for sample PDP’s]. Your successes, your needs, and your plans for continued professional growth should be included” (Castor College, p. II-25). From this assignment description, descriptive reflection and dialogic reflection seem like they would be useful in meeting the requirements. Descriptive reflection can be used to explain the successes, needs, and plans for growth. Dialogic reflection can help interns offer alternatives to explain and hypothesize about what happened in their classroom. Table 6 provides a summary of the assignments collected for this study.

Table 6

Summary of Assignments Analyzed in this Study

Assignment Title	Month(s)	Brief Description
Daily Reflective Journal	August, September, October, November, December	“Interns must keep a journal throughout their internship, spending five to ten minutes at the end of each day reflecting and integrating the day’s events. The reflective journal is not a diary of complaints or listing of events. It is to reflect, which is a multifaceted process, directing thinking inwards in order to analyze classroom events and circumstances. <i>To become an effective teacher, it is not enough to recognize and talk about what happens in the classroom. It is imperative to also understand the ‘whys,’ ‘hows,’ and ‘what ifs,’ in the room.</i> This understanding comes through the consistent practice of reflective thinking.” (Castor College, 2010, p. I-13)
Cumulative Portfolio	December	“The portfolio is an edited collection of materials that provide a framework for demonstrating knowledge, understanding, experiences, and processes for learning. The purpose of the portfolio is to provide a personal tool for reflecting upon

		skills, knowledge, and understanding. The portfolio should be organized in a way to document evidence of effective teaching and should include the <i>Effective Intern Evaluation Standards</i> .” (Castor College, 2010, p. I-17)
Monthly Lesson Reflection	September	<ul style="list-style-type: none"> • “plan, teach, and reflect on a lesson” (Castor College, 2010, p. II-19) • watch the video and complete a behavior management checklist and then “write a brief summary of (a) ways in which you used Dimension 1 and (b) ways to improve your use of Dimension 1” (Castor College, p. II-19)
	October	<ul style="list-style-type: none"> • “plan, teach, and reflect on a lesson” (Castor College, 2010, p. II-19), focus on declarative and procedural knowledge/DOL 2 • “discuss specifically how you adapted the steps in DOL 2, and write a reflection on the effectiveness of your adaptations in addressing the learners’ stages of development and in meeting individual and group needs” (Castor College, p. II-21)
	November	<ul style="list-style-type: none"> • “plan, teach, and reflect on a lesson” (Castor College, 2010, p. II-19), focus on extending and refining knowledge/DOL 3 • “discuss specifically how you adapted DOL and write a reflection on the effectiveness of your adaptations in meeting your students’ special learning needs” (Castor College, p. II-23).
	December	<ul style="list-style-type: none"> • “plan, teach, and reflect on a lesson that addressed the needs of students from diverse cultural backgrounds” (Castor College, 2010, p. II-25),
Professional Development Plan (PDP) Reflection	December	“Write a reflection on your student teaching placement. [See II p. 14 for sample PDP’s]. Your successes, your needs, and your plans for continued professional growth should be included” (Castor College, p. II-25).

In addition to providing the researcher with copies of the assignments described above, each participant also completed a questionnaire on SurveyMonkey in April 2012 when they agreed to participate in the study (see Appendix B for questionnaire). This online questionnaire provided background data on participants with a minimal time

commitment on their behalf. The 29 questions gathered demographic information, academic information including study abroad experience and reflection in coursework outside of the education department, and perceptions of assignments during the internship. The study abroad questions were included because the study site requires students to have an international experience and there is evidence that international experience has an impact on pre-service teachers (Trilokekar & Kukar, 2011). This questionnaire served two main purposes: 1) assist in theory building about possible intern characteristics that could impact level of reflection (demographics, academic history, study abroad, reflection in other coursework) and 2) gathers intern perceptions about internship assignments. The former was useful in identifying patterns across interns (research question 5) and the later was useful in identifying trends across assignments that correlate with dialogic and critical reflection (research question 2).

The research questions and focus of the study include an assumption that writing is the key vehicle of preservice teacher reflection, however, there are other vehicles for intern reflection. The questionnaire provided a check on this assumption in the research through question 23 “To what extent did you reflect on your teaching experience with the following people: alone, with mentor teacher, with college supervisor, with other teacher interns, with non-intern friends, with family, other” (see Appendix B). All of the interns reported reflecting with others with varying frequencies throughout the internship semester as well as reflecting in their written assignments.

Data Analysis

I met the demands of trustworthiness in my research by coding the data two times, triangulating findings, using thick description in reporting, and clarifying the bias that I

bring to the research. Yin (2003) and Creswell (2003) offer insight into how I can ensure trustworthiness in my research. Yin (2003) suggests that a way to deal with reliability in a case study is for the researcher to repeat her own work using documentation of procedures. I both kept documentation of my coding process and coded each document two times. This ensured that I did not miss any codes or themes in the data and ensured that I found the best way to describe the events under study. Creswell (2003) identifies eight strategies for checking the accuracy of qualitative findings of which I applied three in my present research. First, I “*Triangulate[d]* different data sources of information by examining evidence from the sources and using it to build a coherent justification for themes” (Creswell, p. 196). I used the participant written assignments to identify themes and I then looked to the participant survey responses to support themes or offer alternative explanations for the phenomena. I also used thick description in my reporting of findings in order to “transport readers to the setting and give the discussion an element of shared experiences” (Creswell, p. 196). Finally, in my reporting of study design I explained the bias that I bring to the study in an attempt to create “an open and honest narrative that will resonate well with readers” (Creswell, p. 196). The application of these four strategies helps ensure trustworthiness in the present study.

I used an iterative process to code the collected data. First, I read all of the documents written by Abaigeal, a randomly selected intern. As I read I developed topic codes in vivo and separated the documents into coding units with each new topic. I then identified the types of writing associated with each unit. Through in vivo coding I compiled a list of approximately 40 topic codes. Then I applied the same process to Beverly’s work and generated about 10 more topics codes. Through both data sets I had

trouble making decisions about coding units as many topics were intertwined in the interns' writing even down to the sentence level. At this point after experiencing coding the data I made a series of decisions about how the coding process should proceed to ensure trustworthiness in the coding process.

Although my original decision to create coding units based on topics may have provided a more straightforward analysis to easily connect topic(s) to the type of writing, I reconsidered to ensure reliability in the coding units (Krippendorff, 2004). I decided to use each paragraph as a distinct coding unit. This was a more reliable method as the syntactical distinctions naturally flow from written documents and would be simple for other researchers to replicate. One potential limitation of this coding unit definition is some interns lack clear organization and structure in their writing and therefore multiple topics and types of reflection may be included within one unit. This may result in a slight loss of clarity in the analysis; however, the need for trustworthiness in qualitative research outweighs the slight potential loss in clarity.

I used the revised unit definition to code the next data set, which happened to be Christine's. I also experimented with a short list of six topics that I created from looking at the main topics I found from the in vivo list generated from Abaigeal and Beverly (students, teacher, lesson, collaboration, growth, resources). I found the units much easier to define. The condensed topic codes lost robustness as the majority of units were simultaneously coded students, teacher, and lesson. These preliminary iterations of coding helped me to determine the best unit definitions and topic codes.

Once I solidified my unit definitions and grain size for codes, I began coding all of the data using the software Dedoose. I entered topic codes into Dedoose that were less

specific than those produced in vivo and more specific than the six used for Christine's preliminary coding and began the coding process again for all documents (even those previously coded by hand). There were approximately 14 topic codes, four types of writing codes, and several other codes to ease later analysis (for example great quotes and perspective taking). The type of writing codes use Hatton and Smith's (1995) definitions for descriptive writing, descriptive reflection, dialogic reflection, and critical reflection. I decided that if a paragraph were coded descriptive reflection it would not be coded descriptive writing even if there was also descriptive writing in the paragraph as the definition of descriptive reflection encompasses descriptive writing. A unit may have more than one topic code and more than one type of reflection code (just not descriptive writing and descriptive reflection). The software allowed me to add codes and edit the code descriptions as I coded the data.

In addition to codes, I identified the documents and interns by descriptors. The documents have the descriptors month (August, September, October, November, December), short term/synthesis writing, and type of assignment (journal, portfolio, monthly lesson reflection, professional development plan). Interns have the descriptors name, degree (elementary, secondary, special education), school placement level (elementary, middle, high school), GPA range, and study abroad (yes or no). The assignment and intern descriptors allow for analysis including across interns, programs, assignments, and month of internship. Information for intern descriptors was gathered from the survey and information for the document descriptors was gathered from the internship handbook.

I made several decisions to reduce the data in the portfolios. I decided to only code the portfolio information that the participants typed onto the webpage of the web based portfolio and not code the attached documents. This decision was made for several reasons. First, many of the interns attached the same journal entry several times in the portfolio to document different standards. By coding the journal multiple times it would inflate the type of writing and topic coding related to those particular journal entries. Second, by coding the attached journal entries that were written at another time during the internship it would impact the descriptors month and short term/synthesis writing. Portfolios have the December and Synthesis Writing descriptors and journals have the month they were written and Short Term descriptors. A second data reduction strategy I applied is I did not code the biography or teaching philosophy section of the portfolios even if interns typed that information directly onto the webpage. The intent of these sections is not reflection; therefore, the sections did not contribute to my understanding of the interns' written reflection. The final reduction decision I made on the portfolios was to not include the bolded titles in the excerpts and focus only on the narrative paragraphs the interns wrote on the portfolio. These data reduction strategies with the portfolios served to bring clarity to the analysis.

The next process decision I had to make was to code a complete data set intern by intern or to code by assignment for each intern (e.g. assignment one for each intern, assignment two for each intern...). I tried first coding all of Abaigeal's assignments. I coded each document one time assigning as many topic and type of reflection codes as appropriate to each paragraph unit. I then checked the coding for each of Abaigeal's documents to ensure consistency in topic and type of writing codes. The second review

also gave me the opportunity to identify meaningful quotations and write memos that could potentially help with analysis. This process gave me a clear understanding of Abaigeal and her reflective writing. Next, I experimented with coding one assignment for all interns. I selected the December Lesson Reflections for this task because of the brevity of the assignment. Coding across the assignment gave me a better snapshot of reflection within the assignment than when I coded all of Abaigeal's assignments. I prioritized research question two (about patterns in assignments) over research question five (patterns within and across interns) and decided to code by assignment. Once I committed to this process decision I coded all interns' responses to one assignment and then coded all of the assignments a second time before moving onto the next assignment.

The topic and type of writing codes were established early on in the coding process. While coding the data if I noticed a particular trend in the writing that did not fit into a topic code I added it to the Miscellaneous Codes list for possible later analysis. Table 7 contains the final topic codes, Table 2 contains the Hatton and Smith (1995) definitions for the types of writing, and Table 8 contains the miscellaneous codes.

Table 7

Topic Codes

Topic Code	Description
Collaboration	Including collaboration and conflict with other teachers and college supervisors, applying feedback that was received, "my mentor teacher and I talked and we decided..."; excluding "I did X because my mentor teacher told me to," "I received feedback that I did X well," or "attached is the feedback from my supervisor"
Outside Influences- Outside assessments	Including county and state assessments

Outside Influences- System demands	Including Common Core Standards, Voluntary State Curriculum (VSC), and No Child Left Behind (NCLB); excluding system assessments
Outside Influences- Parents/families	Including parents/families visiting the school, communicating with parents/families, and parents/family life influencing student at school
Lesson Planning and Implementing	Including assessments administered at the teachers' discretion; applied when focus is on the lesson itself, describing the act of planning daily, short-term, and long range plans, play-by-play of each activity that the intern did with the students, an assignment is referenced without mention of student learning, "here is a copy of the assignment students completed"
Resources	Including technology, supplies, physical space
Intern Emotions	Including excitement, nervousness, exhaustion...
Teacher-act of teaching	Including timing, delivery, questioning, teaching strategies; different from "lesson planning and implementing" because this focus is on the teaching event or the intern serving as teacher, less focused on the plan and detailed descriptions of what happened in each part of the lesson
Teacher-role of teacher	Including classroom set-up, walking students to specials, administering required reading tests, professionalism, confidentiality, morals, ethics, attending professional development meetings and school meetings, statements beginning "teachers must..."
Teacher-growth as a teacher/professional	Including both how intern has grown and how they hope to grow
Students- student/teacher relationships	Including management, respect, behavior, positive attitudes, expectations of students, participation, following directions, gaining attention of group, learning environment when discussing atmosphere, getting to know students; management, following directions, and behavior are included here because they are outgrowths of the relationship between teacher and student even if interns do not write about management, directions, and behavior as results of their relationships with children
Students-student learning	Including knowledge acquisition, grades, metacognition

Students-student needs	Including diversity, accommodations, engagement, abilities, motivation, incentives, emotion/safety/security needs of students, planning to keep students attention, student emotions
Students-relationships between students	Including working together, friendships, play; not used every time that group work is mentioned but only when focus is how students worked together; non-example: students worked in pairs; example: when students worked in pairs they fought

Table 8

Miscellaneous Codes

Topic Code	Description
Explicit mention of a theory/theorist	Referring to a theory or theorist by name
Evaluating a teaching decision with justification	Includes “the activity was good because everyone was moving around;” does not include “my lesson went well” or “I liked the activity”
Perspective taking	Did the intern write from the perspective of another person in the situation?
Caption	Portfolio descriptions like “This is a copy of the feedback from my supervisor” or “This is my lesson plan on skip counting”

Conclusion

This chapter began by presenting an overview of the most common methodologies in the field of preservice teacher reflection, content analysis and case study, as well as the affordances and constraints of each, in order to justify the use of the methodologies in the current study. Next, the research questions, study design, study setting, participants, and researcher positionality were introduced. The chapter concluded with an in depth discussion of the data and the data analysis procedure. The next chapter will present the findings of this research study.

Chapter 4: Findings

This chapter will discuss the findings related to each of the following research questions in turn:

1. What categories of preservice teacher reflection are revealed by internship assignments?
2. For each assignment, are there patterns revealed in the dialogic and critical reflection? If so, what are the patterns?
3. What topics are present in writing for various categories of reflection?
4. Are there trends in the categories of reflection over time? If so, what are the trends?
5. Are there patterns within and across individual interns' reflection? If so, what are the patterns?

Research Question 1: What categories of preservice teacher reflection are revealed by internship assignments?

Throughout all of the assignments, intern work revealed all four types of writing as defined by Hatton and Smith (1995): descriptive writing, descriptive reflection, dialogic reflection, and critical reflection. There were 1,611 coding units (referred to as “units” from this point forward) from the assignments, which were assigned 1,652 types of writing codes (as noted in chapter 3 some units received multiple type of writing codes). Across all intern data, the majority of units were descriptive reflection (59.22%) followed by descriptive writing (40.78%), dialogic reflection (2.55%), and critical reflection (0.06%) (see Table 9).

Table 9

Number/Percent of Overall Units with Each Type of Writing

	Number of units with code	Percent of 1611 units
Descriptive writing	657	40.78%
Descriptive reflection	954	59.22%
Dialogic reflection	41	2.55%
Critical reflection	1	0.06%

Note. Percentages sum to more than 100 because each dialogic and critical excerpt also received a descriptive writing or reflection code.

Of particular relevance to this study is the discrepancy between interns' perceptions of their writing and the types of writing revealed in their writing as presented in Table 10. The questionnaire results highlight participant perceptions of the different types of writing in internship assignments. There was one question on the questionnaire to gauge intern agreement with statements corresponding to each type of writing in everyday language using a five point Likert Scale (see questionnaire question 27 in Appendix B). All participants agreed or strongly agreed with the statements "The written assignments gave me the opportunity to describe events that occurred," describing descriptive writing, and "The written assignments gave me the opportunity to report reasons for events that occurred," describing descriptive reflection. These responses are consistent with the high percentages of descriptive writing and descriptive reflection found in the units.

Table 10

Participant, Survey Response, and Content of Writing

Participant	Survey descriptive writing	% descriptive writing	Survey descriptive reflection	% descriptive reflection	Survey dialogic reflection	% dialogic reflection	Survey critical reflection	% critical reflection
Abaigeal	Strongly Agree	49.26%	Strongly Agree	48.53%	Strongly Agree	2.21%	Agree	0.00%
Beverly	Agree	45.29%	Agree	52.35%	Agree	2.35%	Disagree	0.00%
Christine	Agree	41.34%	Agree	55.87%	Strongly Agree	2.23%	Disagree	0.56%
Dana	Agree	25.10%	Agree	70.72%	Neither agree nor disagree	4.18%	Strongly disagree	0.00%
Eva	Agree	20.98%	Agree	78.32%	Strongly Agree	0.70%	Strongly agree	0.00%
Fay	Strongly Agree	41.37%	Strongly Agree	55.89%	Agree	2.74%	Neither agree nor disagree	0.00%
Gaby	Agree	53.93%	Agree	44.94%	Agree	1.12%	Agree	0.00%

Although units with dialogic reflection are far less common in the data than descriptive writing and reflection, responses to the statement “the written assignments gave me an opportunity to step back from the event and consider multiple perspectives” had six participants strongly agree or agree and only one participant, Dana, responded “neither agree nor disagree” showing a disparity between candidates’ perception of their writing and the content of their writing. This is particularly noteworthy because Dana had the most units with dialogic reflection of all of the participants when examining both the raw and normalized data. In this study dialogic reflection was far less common than descriptive writing and descriptive reflection, however, intern perception of opportunities to “step back from the event and consider multiple perspectives” was similar,

demonstrating a disconnect between intern perceptions of their reflection in writing and the content of their writing.

In the last question about types of writing, interns responded to the statement “The written assignments gave me the opportunity to consider the multiple historical and socio-political contexts of situations” to gauge intern perceptions about partaking in critical reflection. The seven intern responses were spread among the five-point Likert scale options. Most notably, Christine, the only intern to have an excerpt with critical reflection, disagreed with the statement and the three interns who strongly agreed or agreed had no units with critical reflection. Intern perceptions of their writing and content of intern writing will be discussed further in chapter 5.

In addition to looking at the overall type of writing codes and intern perceptions about their writing, we can examine the data by specific assignments. Figure 2 shows the raw number of units with each type of writing code for each assignment. Looking at the relative height of the bars for each assignment it is evident that descriptive reflection was the most prevalent type of writing within monthly lesson reflections, daily journals, and the PDP reflection. In the portfolio descriptive writing was slightly more common than descriptive reflection.

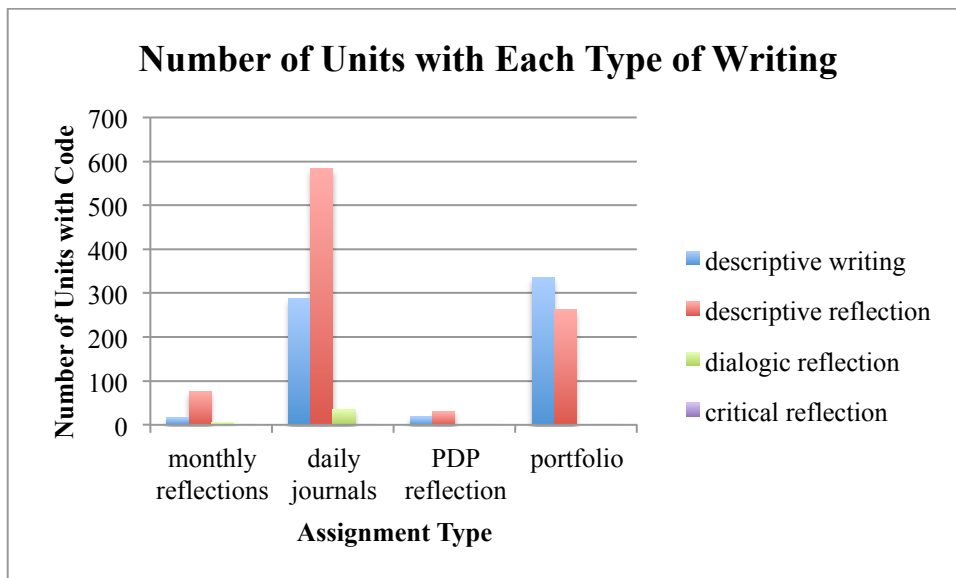


Figure 2. Number of Units with Each Type of Writing

There were unequal numbers of units for each assignment; for example, there were a total of 30 units for all of the PDP reflections contrasted with 872 journal units. In order to compare across assignments we must therefore look at relative percentages of type of writing for each assignment instead of raw counts. The largest percentage of descriptive writing is in the portfolios (56.19%) followed by the PDP reflection (36.74%), daily journals (31.72%), and finally the monthly lesson reflections (16.50%). From Figure 3 it is evident that as the percentage of descriptive writing increases the percentage of descriptive reflection decreases. Specifically, the percentage of descriptive reflection is highest in the monthly DOL reflections followed by the daily journals, PDP reflection, and portfolios.

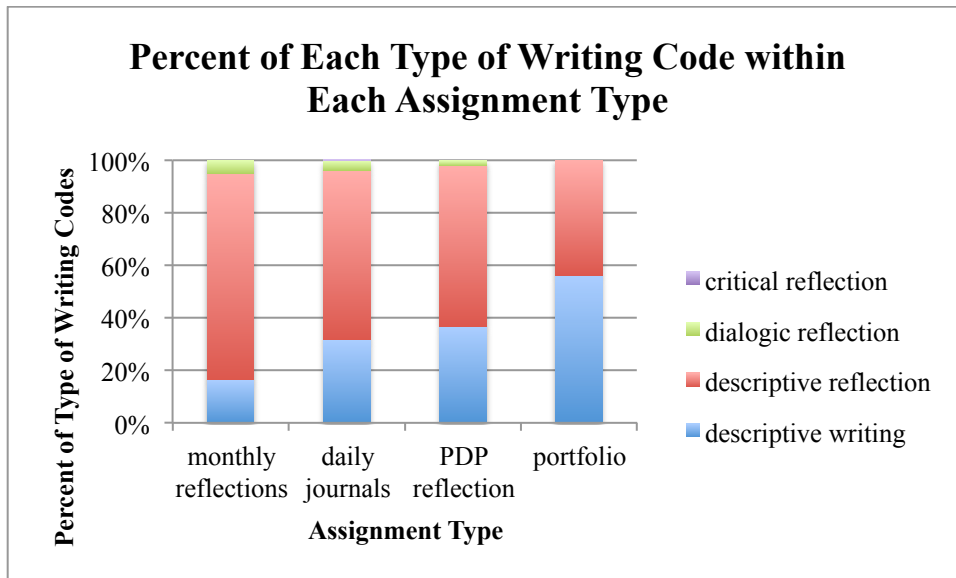


Figure 3. Percent of Each Type of Writing Code within Each Assignment Type

The preceding discussion includes descriptive writing as well as the three categories of reflection and gives an overview of all of the writing that interns completed for assignments with reflection in the title or assignment description. Many units within the “reflective” assignments are coded as only descriptive writing because they lacked reflection. One representative unit is from Beverly’s November Lesson Reflection:

Throughout my lesson I also indicated the different places students could look in the room for the steps and procedure they need to follow for certain steps of the writing procedure. The entire writing procedure (plan, draft, revise, edit, publish) is posted on a small whiteboard which students can refer to. There is also a poster of worn out words (words that students use frequently), with replacements of the words posted on the Writing Workshop bulletin board, and I was careful to indicate that students should look there for help. Also, before students were given their writing piece to work on individually, I made sure students understood what the processes for revising were, and what we were specifically working on today.

Beverly described what happened but made “no attempt to provide reasons or justification for events” (Hatton & Smith, 1995, p. 48).

In order to focus on the categories of reflection, the discussion will shift to just those units that were identified as reflective with the type of writing code descriptive reflection, dialogic reflection, or critical reflection. Overall, descriptive reflection was the most frequent type of reflection revealed in the assignments (Figure 4). The section for critical reflection is hard to distinguish on the pie chart because there is only one excerpt with critical reflection and it represents less than 1% of the total number of reflective units.

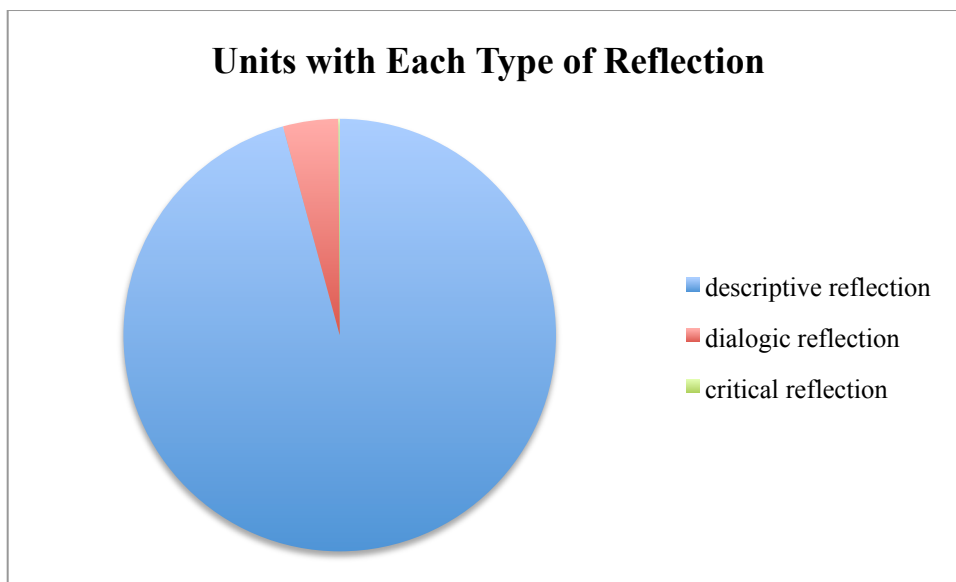


Figure 4. Units with Each Type of Reflection

Figure 5 below focuses on the percent of each category of reflection within each of the four types of assignments. Descriptive reflection is the predominant type of reflection in all assignments and the only category of reflection revealed in the portfolios. Dialogic reflection is only 6% of the reflection revealed in the monthly lesson reflections and an even smaller percent of the reflection was revealed in daily journals and the professional development plan reflection. There is only one unit coded as critical

reflection and that was in a daily journal entry. Although all three categories of reflection were present in intern assignments, descriptive reflection represented 95.8% of the overall reflective coding units as well as the largest percent of units revealed for each type of assignment.

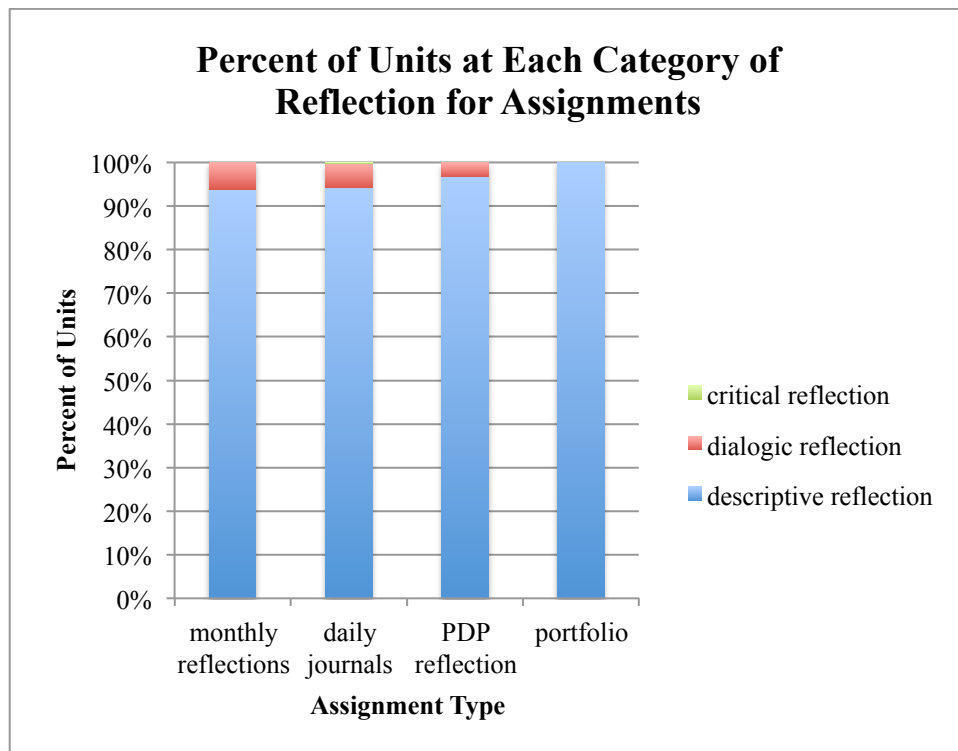


Figure 5. Percent of Units at Each Category of Reflection for Assignments

Research Question 2: For each assignment, are there patterns revealed in the dialogic and critical reflection? If so, what are the patterns?

As noted in the previous section, dialogic and critical reflection comprise less than 5% of the reflective coding units and less than 3% of the total 1,611 coding units. Analysis of the assignments reveals patterns in the dialogic and critical reflection. In order to fully understand the phenomena, each assignment description and corresponding

coding units will be analyzed and then the findings will be triangulated with intern perceptions as reported in the questionnaire.

Journal.

There are 908 coding units from the daily journal entries of the seven participants of which 35 (3.85%) were dialogic reflection and one (0.11%) was critical reflection. The daily journal assignment is the only assignment in which intern work revealed all four types of writing. One possible explanation for this is the assignment prompt in which interns are told “*To become an effective teacher, it is not enough to recognize and talk about what happens in the classroom. It is imperative to also understand the ‘whys,’ ‘hows,’ and ‘what ifs,’ in the room*” (Castor College, 2010, p. I-13). Describing what happens in the classroom may encourage descriptive writing. Exploring the whys, hows, and what ifs are potential prompts for descriptive, dialogic, and critical reflection. Although the sample journals provided in the Internship Handbook were descriptive writing and descriptive reflection, every participant except Gaby wrote dialogic reflection at least one time.

Dialogic reflection in the journal assignment. The 35 units with dialogic reflection in the daily journals were found primarily within Dana (11 units), Fay (10 units), and Beverly’s (8 units) journals. The other six dialogic units were distributed among Abaigeal (3 units), Christine (2 units), and Eva’s (1 unit) journals. In the dialogic reflection within journal units, 25 units included the topic “student needs”, 15 “lesson planning”, and 13 “student/teacher relationships.” The dialogic reflection was not necessarily about the topics previously mentioned, but the topic was addressed in the same coding unit as the dialogic reflection.

“Student needs” was the most frequent discussion topic within the 35 dialogic reflection units in the journals. In the following representative unit, Abaigeal discusses the way social studies is taught in her classroom and the result of an administrative decision to eliminate social studies to make more time for reading:

...I also do not like the way I observe social studies being carried out in lessons and I'm not sure who [*sic*] to blame. I think most of the blame rests on the book the students use. I do not think the material is presented in a clear enough way for the present level of these students. I think a lot of the information is too embedded in the text. These students are still in the learning to read stage of their reading development. This book forces them to be reading to learn, a stage they have not hit yet. Therefore, it makes it difficult for the students to simply find the information. At the same time, I am not fond of the phonics instruction that is taking place during this social studies time. I know it is still early, but I would like to see different things happen during that time. I know in another social studies class, at about the same level, the class is reading poems and doing phonics and reading instruction through them. I was also thinking how easily you could embed social studies content into the reading/phonics lessons. Simple use of social studies trade books could be one great way to do that. These second graders need practice with fluency, phonics, reading, main idea, summaries, and looking back into the text, etc. (October 19 Journal)

Abaigeal focuses on the students' needs and reading ability when discussing the social studies textbook and hypothesizes about the possible causes in this unit. “Student needs” was the most common topic revealed in the journal units with dialogic reflection.

In addition to “student needs,” “lesson planning” was a common topic in the dialogic units from the journals. One representative example of a journal unit with both topics “student needs” and “lesson planning” is from Christine on November 4:

Today I was substituting because Ms. M [mentor teacher] was out sick for the day. I did my weather lesson for the second time with the advanced 8th grade team and it went awesome. They weren't bored, they were completely engaged and I felt that Ms. M was right about the success of the lesson. I did it again with the lower level 8th grade SP 2 team and they did just fine with it as well. I don't know if this lower team, that I've never taught before, kept it together because the 8th grade assistant principal's secretary was there or because applying my supervisor's suggestions was working. I'll have to see how the rest of my 2 weeks teaching goes with them.

Here Christine steps back from the situation and offers two possible causes for her students ability to keep “it together”: the secretary in the room or Christine's application of her supervisors' suggestions.

The third most common topic in the dialogic reflection found within the journal assignments was “student/teacher relationships.” In the following representative unit Beverly wrote about her day:

Today was a fairly relaxed day, and my cooperating teacher taught most of the day, taking into account the fact that I have a cold that has left me with only half of a voice. However, one thing that I was extremely aware of as I sat observing lessons is the ability of my cooperating teacher to command the attention of the class. Although I feel like I used the same cues and methods to redirect their

attention, their response is much faster to my cooperating teacher. Possibly this comes with time as a seasoned teacher, or maybe the students are more aware than I realized of the difference between “teacher” and “student teacher.” This ability to command and maintain the groups’ attention is something I will definitely continue to work towards, as I begin to be more aware of how I can make my teaching better. (November 19 Journal)

Beverly noticed differences in the students’ responses to her and her mentor teacher and suggested possible reasons for the differences. One pattern in the dialogic reflection within the journal is the propensity of units with the topic codes “student needs” (25), “lesson planning and implementing” (15), and “student/teacher relationships” (13).

Critical reflection in the journal assignment. The only unit with critical reflection in all of the intern assignments was in Christine’s journal entry on September 30, about one month into the school year. Christine describes a conversation with her mentor teacher about developing an authoritative tone and then goes on to describe a class that she hates:

...Honestly, I HATE that period. HATE, HATE, HATE, HATE, HATE that period (8th graders). Like, I *dread* when it’s time for me to teach them anything that is a lesson of mine and I have to deal with their BS. I know that’s a horrible thing to say, but it’s true! Paula [first name of professor, changed for confidentiality] says that it’s not the kid’s fault. That the teacher must be doing something wrong up there if she can’t motivate the kids. But, I’m thinking in my head, *what am I supposed to do? I can’t want this for you! You have to want it for yourself too!* Ms. M put it in perspective for me though in a way that I understood

a lot better. She said that we just have to find a way to get through to them. For some it takes phone calls home. For others it takes detentions. We just have to find the way to make them change their attitude. *I also expressed that it's hard for me to sympathize with these kids. I'm not a rich white teacher sitting here thinking "oh these poor underprivileged kids, with their race issues and their socioeconomic gap problems." NO! I'm sitting here thinking "If I can do this, you can do it. I am a black Latina from a poor socioeconomic background damn it, and if I can do it you can too!* [emphasis added] *Especiall*y since what you're complaining about is something STUPID like having to pick up your PENCIL to TAKE DOWN A NOTE! You're not SOLVING anything! What the hell is so hard?!" - ___ - . Any who, moral of the story is that I have no empathy AT ALL. The reason I got into teaching was to motivate kids because none of my high school friends made it anywhere, but I don't know how to make you want better for yourself...

This is critical reflection because Christine references her own ethnicity, race, and socioeconomic status and compares herself to the students. As Hatton and Smith (1995) defined critical reflection, Christine is demonstrating "an awareness that actions and events are not only located in, and explicable by, reference to multiple perspectives but are located in, and influenced by multiple historical, and socio-political contexts" (p. 49). This is the only reference to ethnicity, race, or socioeconomic status revealed in all of the participant journal entries and it is possible that additional references to these topics would reveal more critical reflection in intern written assignments.

Intern perceptions of the journal assignment. Intern perceptions of the assignment, as reported in the questionnaire, shed light onto the patterns in the dialogic and critical reflection within the journal assignment. For the question, “Which written assignments during your internship semester encouraged you to reflect the most” (see question 28 Appendix B)? Christine and Abaigeal were the only interns to identify the journal. Abaigeal specified that the journal encouraged her to reflect the most “during the first half of student teaching” and then reflect the least

...toward the end of student teaching when our full time teaching was in full swing. With creating lessons on our own and with handling [sic] more and more classroom responsibilities, it was more important that we do them well instead of using that time to reflect on the day in writing.

Throughout the questionnaire the other five interns said the journal felt like busywork and/or the journal encouraged them to reflect the least of any of the assignments.

Gaby was the most forthcoming about feelings towards the journal assignment. She only wrote three journal entries while the other interns wrote an entry for almost every day of the internship. In an email on April 25, 2012, Gaby shared with me:

I wanted to tell you that during my student teaching experience I did not keep a very thorough reflection journal because my supervisor did not check them and therefore did not require us to do them. Although I didn't writing [sic] down my reflections from my day-to-day experiences, I did sit down with my housemate every evening and discuss our days. We were the only two out of the four people in our house that were enjoying student teaching so we would hide out in her

room and talk about how much we loved it and the struggles/triumphs we had each day, which helped us reflect and problem solve.

On the questionnaire Gaby expanded on her beliefs about reflection and the importance of a written journal:

Teacher reflection is important so that teachers spend the time to really assess what they did in the classroom and how different lessons went, but it is not necessary to keep a diary of those reflections. I believe that it is possible to reflect on these things without having to write entries every day. Most people I know that actually did keep a journal ended up putting the writing off until the end of a week and made up a lot of what was written.

With so few entries and a perception of the journal as busywork “because no one was reading them” (Gaby, Questionnaire) it is not surprising that Gaby did not have any dialogic or critical reflection in her journal entries.

There appears to be a relationship between intern perceptions of the journal assignment and the extent to which they wrote dialogic and critical reflection in the journal. The intern with critical reflection, Christine, also reported the journal as one of the assignments in which she reflected the most. The intern who was most communicative about her dislike of the journal assignment had no dialogic or critical reflection in the journal. The other interns all reported the journal as busy work and/or the written assignment in which they reflected the least at some point in the internship and had no critical reflection and some dialogic reflection.

Summary. This section examined the journal assignment description, provided an overview of the dialogic and critical reflection within the journals, and examined intern

perceptions of the assignment gleaned from the questionnaire and personal communication in order to search for patterns in the dialogic and critical reflection revealed in the journal assignment. The journal prompt may support dialogic and critical reflection and will be discussed further in chapter 5. The most common topics associated with dialogic reflection in the journals were “student needs,” “lesson planning and implementing,” and “student/teacher relationships.” The one unit with critical reflection included references to ethnicity, race, and socioeconomic status of the intern and her students. The majority of participants perceived the journal to be busy work and/or the assignment in which they reflected the least. The one intern who engaged in critical reflection in the journal also identified the journal as an assignment that allowed her to reflect the most.

Monthly lesson reflections.

The monthly lesson reflections had the largest percent of dialogic reflection of any assignment (5/97 units or 5.2%) and no critical reflection. Since the assignment requires interns to view a video of their teaching it may build in a prompt for stepping back from the situation, which could contribute to the higher percent of dialogic reflection of any assignment. This will be discussed further in chapter 5.

The most prominent pattern that is evident when looking at the monthly lesson reflections is the lack of consistency in responses to the assignment. The December lesson reflections and video reflections highlight this difference. The prompt stated “Plan, teach, and reflect on a lesson that addressed the needs of students from diverse cultural backgrounds” (Castor College, 2010, p. II-25). Abaigeal was the only intern to discuss

the diverse backgrounds of her students and explain why her lesson is beneficial to all students in the December lesson reflection:

I have a diverse class. They all celebrate different holidays, live in different situations, and have different lives. Character traits are something that they can have in common or can at least relate to since it is not skin deep, it is deeper. By having them raise their hand to different traits, they we [*sic*] not only able to think about themselves, but they were also able to see how they were alike to many of their classmates even though they look completely different.

Dana on the other hand wrote about incorporating another culture into her reading lesson without mention of the different cultural backgrounds of her students:

Throughout this semester I have told my students several stories about my experiences in South Africa this past summer. They love hearing about how I played with lions, went on a safari and put my feet in the Indian Ocean. However, I wanted to teach them about how their lives at school are similar and different from the school I taught at in South Africa. Such a lesson would put into perspective all that [School Name] offers them because sometimes it is very easy to become accustomed to the luxury of a Promethean board in every room, personal laptops for students, and surround sound outfitted in each classroom.

This reveals Dana's focus on exposing her students to different cultures more so than addressing the different cultural needs of the students. Finally, Christine wrote about pairing fast and slow students, in her words "I think this was a really good strategy that addressed the needs of students from diverse cultural backgrounds. Culture isn't just about ethnicity but about other things as well such as learning ability." It is unclear what

Christine means by “learning ability” however ones’ capacity to learn is not linked to his/her culture or ethnicity. These three very different responses demonstrate the interns’ varying interpretations of the prompt.

The five units of dialogic reflection were found in Abaigeal, Christine, and Gaby’s assignments. The dialogic reflection is distributed through each monthly assignment, however, only one intern had dialogic reflection in a given month so there is not a specific monthly topic or prompt that can be related to dialogic reflection.

All of the interns had positive perceptions of the reflection encouraged by the monthly lesson reflections. Abaigeal, Beverly, Christine, Dana, Eva, and Gaby all responded in the questionnaire that the monthly lesson reflections encouraged them to reflect the most of all written assignments. Although Fay responded that the assignments were busywork she later added “I also liked the video reflections because they required me to observe things I would not otherwise observe, such as my physical actions and subconscious interactions with students.”

The monthly lesson reflections had the largest percent of dialogic reflection in the units of any assignment. The dialogic reflection units were spread across only three of the seven participants. The monthly lesson reflections required interns to view a video of their teaching which may be a prompt for stepping back and offering alternatives for explaining the events. Interns interpreted the assignment very differently; however, all interns had generally positive perceptions of the assignment. These phenomena will be discussed further in chapter 5. Two patterns revealed by the dialogic reflection in the monthly lesson reflections are the lack of consistency in assignment responses and the

positive perceptions of the assignment as revealed by participant responses to the questionnaire.

Professional development plan (PDP) reflection.

The PDP reflections yielded mostly descriptive reflection and descriptive writing. There was one (2%) of 49 units that included dialogic reflection. The assignment description says in December interns are to “Write a reflection on your student teaching placement...Your successes, your needs, and your plans for continued growth should be included” (Castor College, 2010, p. II-25). The prompt is vague and provides no questions to support dialogic or critical reflection. The one excerpt with dialogic reflection will be examined to look for potential trends.

Abaigeal included one paragraph with dialogic reflection in her PDP reflection. She wrote about her objective to add detail to her lesson plans:

In thinking about adding detail to my lesson plans, I believe I have met this objective well. I found it extremely helpful to type out questions I could ask as I modeled a skill. I also found it helpful to write out think-a-louds. I’ve enjoyed creating warm-up activities that engage students and relate the lessons to their lives. While I think I have also worked to improve my closure activities, I still feel that is an area of weakness. *I think part of that has to do with the fact that I cannot point out a time when I have seen a closure activity actually done in a lesson. It just doesn’t happen.* [emphasis added] I will still work to improve in this area.

In the excerpt Abaigeal offers an alternative for explaining why she is weak in the area of closure activities. This is the only time in which a participant explained why she is weak in all of the PDP reflections.

The interns did not have particularly strong reactions to the PDP reflection on the survey. Beverly, Dana, and Fay listed the PDP reflection as one of the assignments that helped them reflect the most. No interns identified the PDP reflection as busy work. Four interns did not mention the PDP reflection in any way (positive or negative) on the survey.

The PDP reflection has a vague prompt without specific questions to prompt dialogic or critical reflection; therefore, it is not surprising that there was only one unit with dialogic reflection. This assignment did not seem to have a particularly powerful impact on the interns, as four of the seven interns did not mention the assignment on the questionnaire at all.

Portfolio.

Across the seven intern portfolios there are a total of 598 units all of which are descriptive writing (336/598 or 56.2%) or descriptive reflection (262/598 or 43.8%). There is no dialogic or critical reflection revealed in the participants' portfolios. As will be discussed further in chapter 5, the lack of dialogic and critical reflection in the portfolio may be due to the assignment description or the lack of scaffolding for dialogic or critical reflection. The assignment description includes that the portfolio is a "personal tool for reflecting upon skills, knowledge, and understanding" (Castor College, 2010, p. I-17), and the portfolio is organized to document the 27 Effective Intern Evaluation Standards. Reflecting on the standards does not require dialogic or critical reflection.

Descriptive writing and descriptive reflection seem to be the most effective way to communicate evidence of effective teaching because these types of writing allow the interns to explain what happened in the classroom and why particular decisions are made. There are no prompts that require interns to hypothesize about alternative causes or explanations (dialogic reflection) or discuss an issue from multiple perspectives or with respect to socio-historical context (critical reflection). One of the four portfolio grading rubrics is for insight and reflection in which high performance is defined as “In depth and critical reflections are included throughout the portfolio” (Castor College, p. I-19), however, there is no definition or example of such critical reflections.

Four interns identified the portfolio in their responses to the questionnaire prompts about which assignment felt like busy work and which assignment provided the most opportunity to reflect. Eva and Dana felt like the portfolio was busy work. Eva responded she “was told by all the principle who does hiring that when going into an interview, no one will want to flip through ALL of the pages of the portfolio.” Similarly, Dana said “the cumulative portfolio was very tedious to make and it felt like busy work because I did not see it's [*sic*] importance past my exit conference with my professors.” Although Dana and Eva felt like the portfolio was busy work, Beverly and Gaby responded that the portfolio was one of the assignments that encouraged them to reflect the most during the internship. There are no discernable patterns between the interns' perception of the portfolio as busy work or tool for reflection and the percent of descriptive writing or descriptive reflection in the portfolio (see Table 11).

Table 11

Intern Perceptions of Portfolio with Percent of Descriptive Writing and Descriptive Reflection

Intern	Portfolio as Busy Work OR Encouraged Reflection	Percent of units Descriptive Writing	Percent of units Descriptive Reflection
Beverly	Encouraged Reflection	50.4%	49.6%
Gaby	Encouraged Reflection	64.5%	35.5%
Dana	Busy Work	44.6%	55.4%
Eva	Busy Work	29.4%	70.6%

There were no incidences of dialogic or critical reflection in the portfolio.

Descriptive writing and descriptive reflection may have been the types of writing best suited to the assignment prompt. Two interns reported that the portfolio felt like busy work and two interns reported that the portfolio encouraged reflection, however, there are no discernable patterns between intern perception and the percent of units that were descriptive writing or descriptive reflection.

Summary.

The four types of assignments yielded different percentages of dialogic and critical reflection based on the total number of units for the assignment. Overall, there are very few units with dialogic and critical reflection so it is hard to argue that any assignment successfully supports dialogic or critical reflection, however, there are patterns in the dialogic and critical reflection for the assignments that are worth noting. The daily journal assignment contained the only unit with critical reflection and the second highest amount of dialogic reflection. The monthly lesson reflections had the highest percentage of units with dialogic reflection although all of the dialogic reflection came from three participants. The only dialogic reflection in the PDP reflection was when

an intern explained why she was weak in a given area. The assignment without any dialogic or critical reflection was the portfolio. Additionally, there is no clear pattern between intern perceptions of the assignment expressed in the questionnaire and dialogic or critical reflection across all of the assignments.

Research Question 3: What topics are present in writing for various categories of reflection?

This section will first discuss the most frequent topics in each category of reflection and then draw comparisons across the categories of reflection.

Topics in descriptive reflection.

All of the topic codes are represented within units containing descriptive reflection in interns' written work. The most common topics are "lesson planning and implementing" and "student needs" with 479 and 456 code applications respectively. In addition, "student/teacher relationships," "student learning," and "act of teaching" have between 200 and 260 occurrences. Figure 6 shows the frequency of each code within descriptive reflection units.

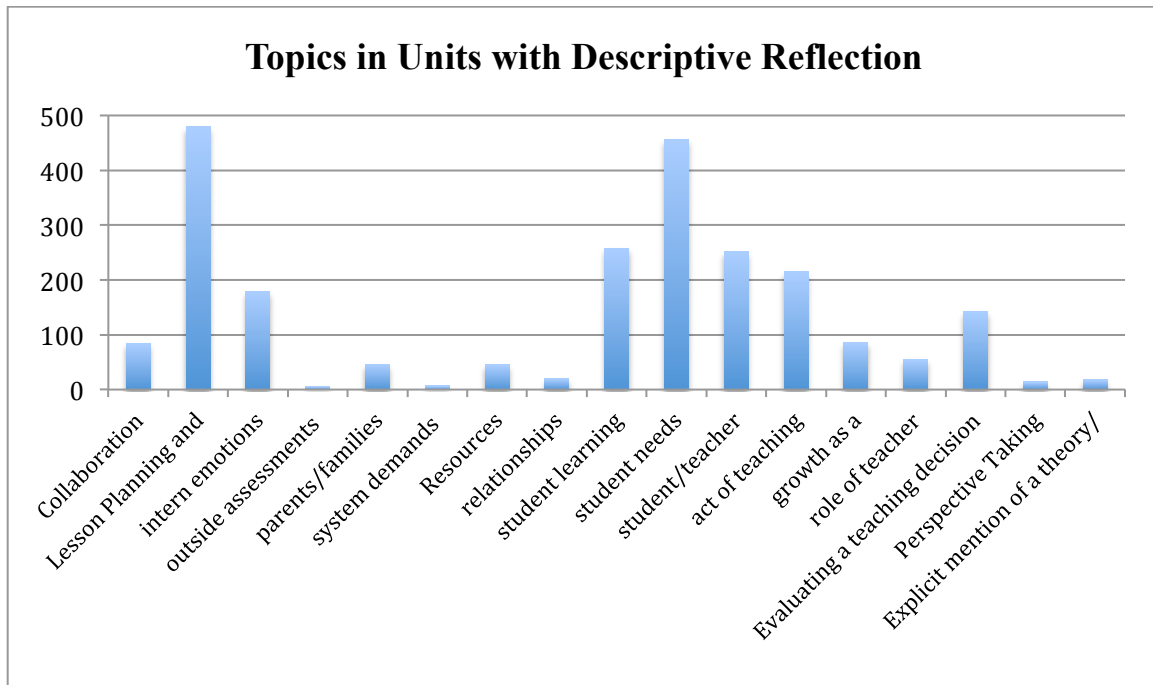


Figure 6. Topics in Units with Descriptive Reflection

Topics in dialogic reflection.

There are 41 units containing dialogic reflection. The most common topic codes in units with dialogic reflection are “student needs” (27), “lesson planning and implementing” (18), and “student/teacher relationships” (17). See Figure 7 for the frequency of every code. One representative example of dialogic reflection about student needs is when Abaigeal discusses the way social studies is taught in her classroom and the result of an administrative decision to eliminate social studies to make more time for reading:

...I also do not like the way I observe social studies being carried out in lessons and I’m not sure who to blame. I think most of the blame rests on the book the students use. I do not think the material is presented in a clear enough way for the present level of these students. I think a lot of the information is too embedded in the text. These students are still in the learning to read stage of their reading

development. This book forces them to be reading to learn, a stage they have not hit yet. Therefore, it makes it difficult for the students to simply find the information. At the same time, I am not fond of the phonics instruction that is taking place during this social studies time. I know it is still early, but I would like to see different things happen during that time. I know in another social studies class, at about the same level, the class is reading poems and doing phonics and reading instruction through them. I was also thinking how easily you could embed social studies content into the reading/phonics lessons. Simple use of social studies trade books could be one great way to do that. These second graders need practice with fluency, phonics, reading, main idea, summaries, and looking back into the text, etc. (October 19 Journal)

Abaigeal focuses on the students' needs and reading ability when discussing the social studies textbook and hypothesizes about the possible causes.

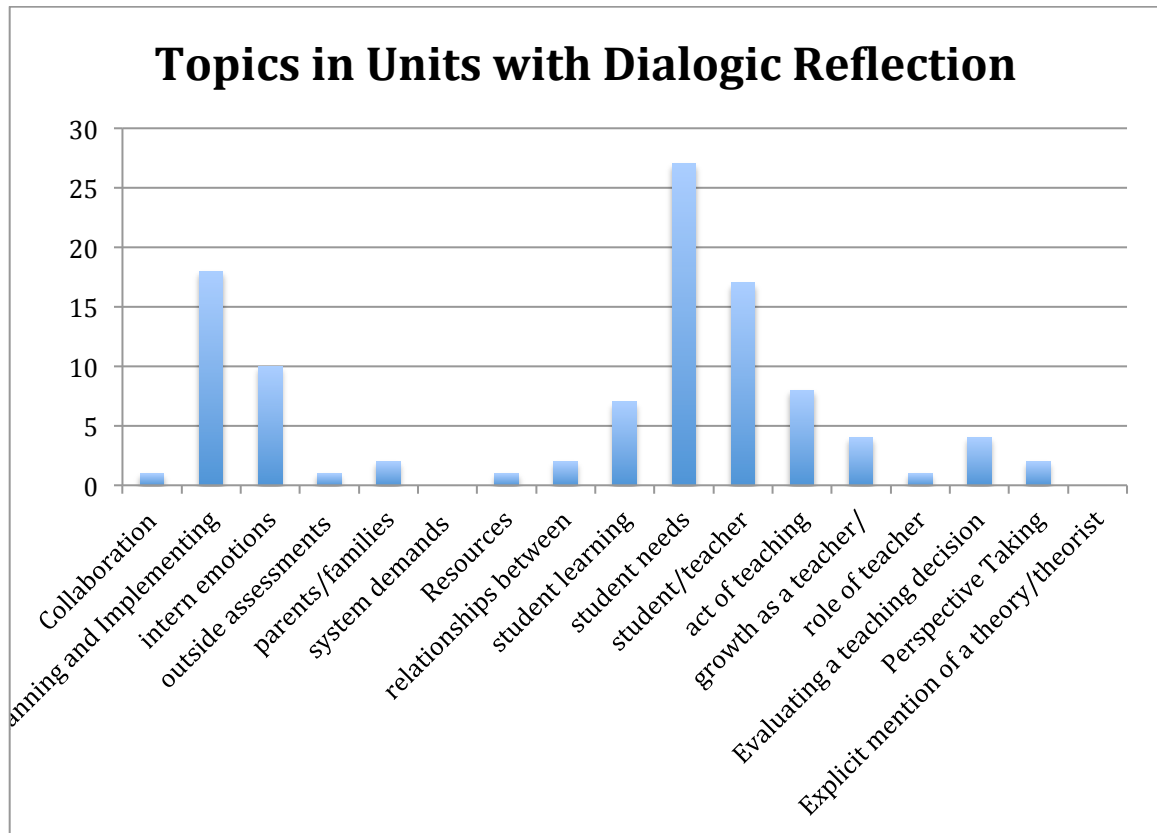


Figure 7. Topics in Units with Dialogic Reflection

Topics in critical reflection.

There is only one unit with critical reflection out of the 1,611 analyzed from the assignments of seven intern participants (0.06% of the units). In addition to critical reflection the unit contains descriptive reflection and the topics “student/teacher relationships,” “collaboration,” and “intern emotions.” The critical reflection is found in Christine’s journal dated September 30, about one month into the school year:

During planning period we had a chat about my authoritative tone and I told her it’s hard for me because I don’t know *how* to sound authoritative without sounding mad. She says not to worry that **I will find my voice**, which made me feel a little bit better. During planning we also talked about things that were troubling me. Honestly, I HATE that period. HATE, HATE, HATE, HATE,

HATE that period (8th graders). Like, I *dread* when it's time for me to teach them anything that is a lesson of mine and I have to deal with their BS. I know that's a horrible thing to say, but it's true! Paula [first name of professor, changed for confidentiality] says that it's not the kid's fault. That the teacher must be doing something wrong up there if she can't motivate the kids. But, I'm thinking in my head, *what am I supposed to do? I can't want this for you! You have to want it for yourself too!* Ms. M put it in perspective for me though in a way that I understood a lot better. She said that we just have to find a way to get through to them. For some it takes phone calls home. For others it takes detentions. We just have to find the way to make them change their attitude. *I also expressed that it's hard for me to sympathize with these kids. I'm not a rich white teacher sitting here thinking "oh these poor underprivileged kids, with their race issues and their socioeconomic gap problems." NO! I'm sitting here thinking "If I can do this, you can do it. I am a black Latina from a poor socioeconomic background damn it, and if I can do it you can too!* [emphasis added] *Especiall*y since what you're complaining about is something STUPID like having to pick up your PENCIL to TAKE DOWN A NOTE! You're not SOLVING anything! What the hell is so hard?!" - ___ - . Any who, moral of the story is that I have no empathy AT ALL. The reason I got into teaching was to motivate kids because none of my high school friends made it anywhere, but I don't know how to make you want better for yourself. Ms. M said the most beautiful thing though. She said **"a lot of these kids have the mentality that if I don't try I won't fail. They are sick of meeting with failure and that is their cop out."** I never thought of it like that

before. The quote of our meeting would definitely be **“If I try I will succeed.”** I told her I think it should be made into a poster, and I definitely plan on making one! She also told me **not to take anything personal. That anger is a secondary emotion; it only comes after sadness, or hurt, so it’s really important to find out what’s going on with these kids that’s making them so angry.** It was an amazing planning period. It gave me back the motivation I needed to teach. This is the kind of class that makes one think “why do I want to be here, when you don’t?” I got my answer today. **I CAN DO THIS!**

The topics in this unit are “student/teacher relationships,” “collaboration,” and “intern emotions.”

Important to note in this unit is the lack of resolution of the critical issue.

Christine brings up the issues of race, class, and student achievement and then does not fully explore the issues in this unit or any other. This will be discussed further in chapter 5.

Summary.

All topics were present in descriptive reflection and fewer topics were addressed in dialogic and critical reflection. In both descriptive reflection and dialogic reflection the most common topics were “lesson planning and implementing” and “student needs.” Many of the trends in percent of reflection with a given topic are similar for descriptive reflection and dialogic reflection (see Figure 8).

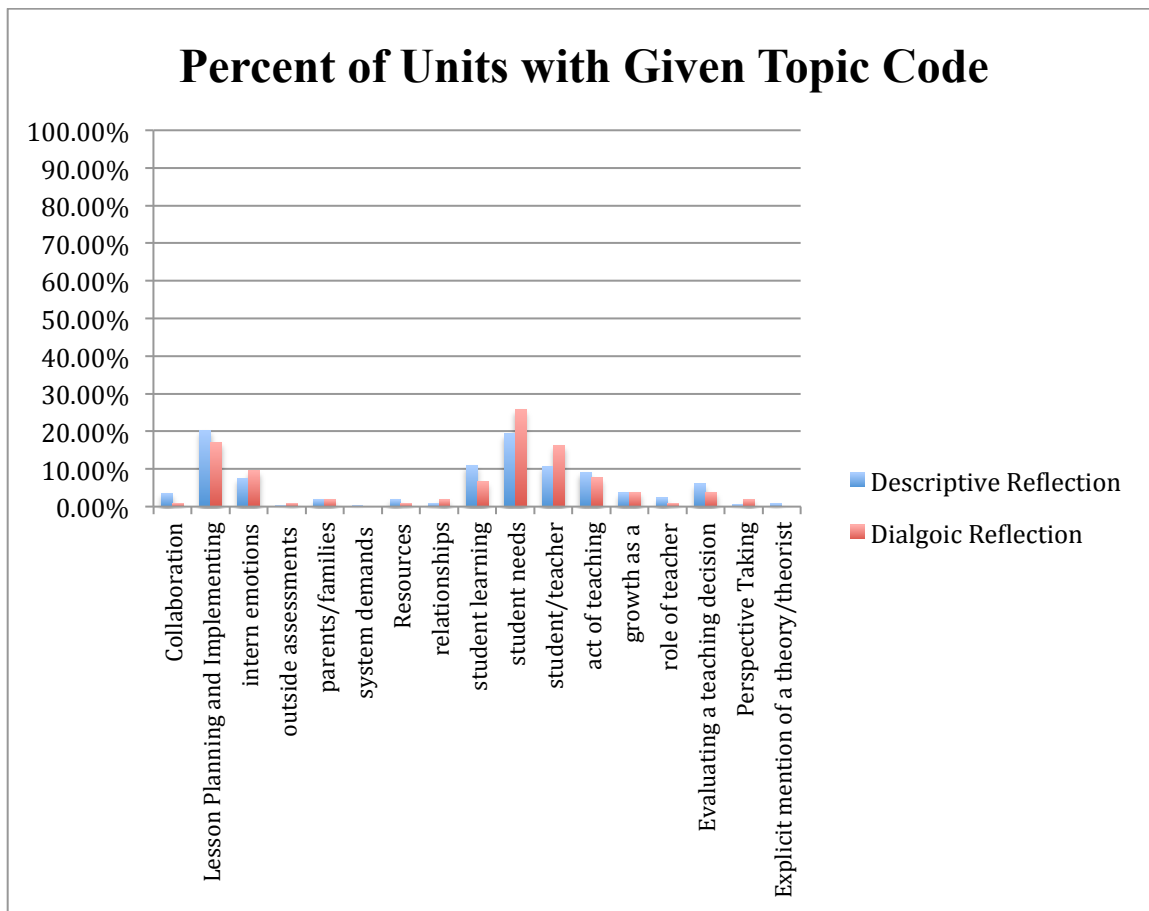


Figure 8. Percent of Units with Given Topic Code

Research Question 4: Are there trends in the categories of reflection over time? If so, what are the trends?

To find trends in the categories of reflection over time I first examined the frequency for each type of writing code by month and then focused on the categories of reflection for each month. I looked at the raw data for trends and compared the percent of each type of writing for each month. From this analysis I identified several trends in the intern reflection over time.

Table 12 below indicates the number of units with each type of writing code for each month. From the table it is clear that in August there was only descriptive writing

and descriptive reflection. September is the only month to have all four types of writing. In October, November, and December there was descriptive writing, descriptive reflection, and dialogic reflection.

Table 12

Number of Units for Types of Writing for each Month

	August	September	October	November	December
Descriptive Writing	16	95	104	74	368
Descriptive Reflection	19	241	209	157	326
Dialogic Reflection	0	12	14	11	4
Critical Reflection	0	1	0	0	0

The August data stands out because that is the only month without dialogic reflection. One thing that set the August assignments apart from the other months is the only August assignments were daily journal entries. Some interns wrote entries for every day they went to their internship site (even before the students arrived) and other interns began their journals on the first day of school for students. The small number of units and lack of variety of assignments may have contributed to the difference in the August types of writing codes.

In addition to looking at the raw number of units it is informative to look at the percent of units for each type of writing each month (see Figure 9) since the number of units was unequal across the months. Descriptive writing was greatest percent of units in December followed by August. Descriptive reflection is the most prevalent type of writing every month except December. Dialogic and critical reflections are only present in September, October, November, and December and they comprise a very small percent of the total units for each of those months.

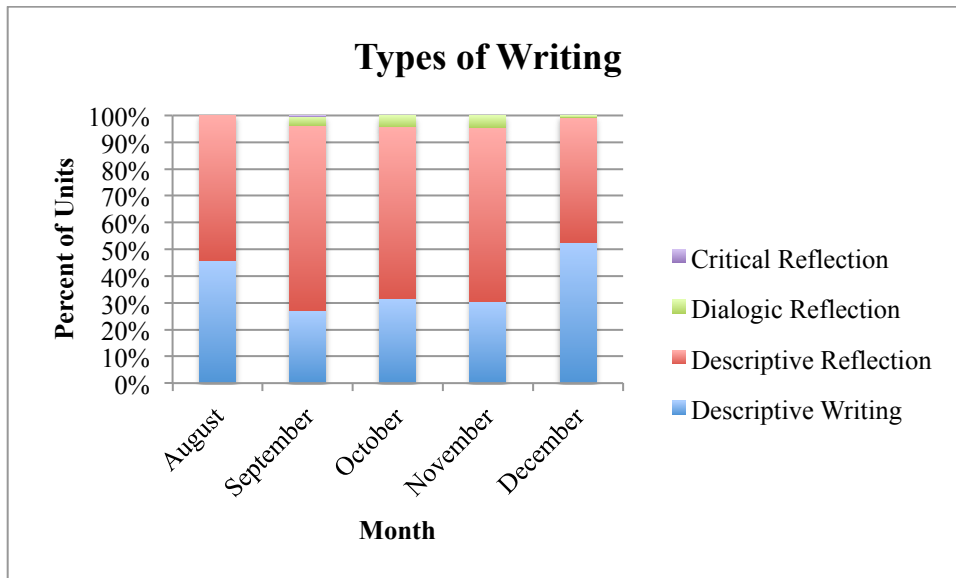


Figure 9. Types of Writing by Month

When we focus just on the categories of reflection, descriptive reflection dominates with more than 93% of all reflective units for each month (see Figure 10). The percent of dialogic reflection steadily increases from September through November and then decreases in December. One possible cause for the decrease in the percent of dialogic reflection in December is in December the majority of the units were from the portfolio and, as identified earlier, the only reflection in the portfolio is descriptive. The assignments in September, October, and November are similar, however, the percent of descriptive reflection slowly increases.

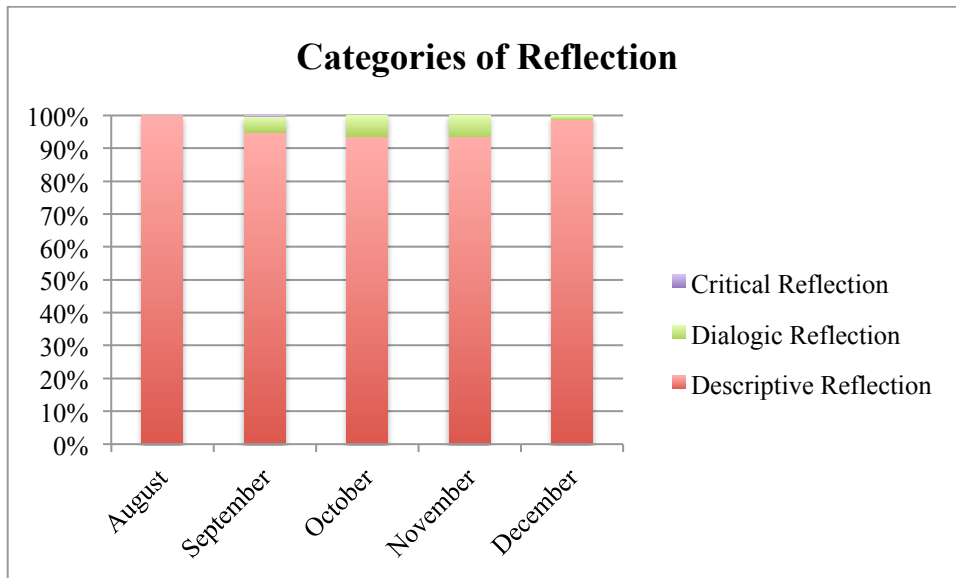


Figure 10. Categories of Reflection by Month

Research Question 5: Are there patterns within and across individual interns' reflection? If so, what are the patterns?

To answer this research question I will provide a short description of each participant with information gathered from her written assignments and questionnaire responses. Then, I will explore patterns within her writing that set her apart from the other participants. This mode of representation will allow for thorough insight into each intern, her beliefs, and her reflection as well as provide a basis for comparison across interns.

Abaigeal.

Abaigeal was an elementary education major with a minor in women's studies. Beyond reflection in her education courses, on the questionnaire she reported having the opportunity to reflect in her women's studies and peace studies classes where she and her classmates "are presented with texts, ideas, policies, etc. which we are actively asked to

think about and reflect on their implications in daily life.” Abaigeal shared in the questionnaire that teacher reflection:

is the reflection of lessons, their outcome, the students [*sic*] reaction to them, and things that could be changed to make them more effective. Reflection also includes looking at other practices used in the classroom and their effectiveness, such as discipline systems.

She also indicated that teacher reflection is important “because it is the only way to be the most effective teacher.”

The majority of Abaigeal’s writing is descriptive writing (134/266 units, 50.38%) and descriptive reflection (132/266 units, 49.62%). Although on the survey Abaigeal “strongly agreed” with the statement that her written assignments gave her the opportunity to step back from the events and consider multiple perspectives, there are only six incidences (6/266 or 2.26%) of dialogic reflection in her written assignments. Additionally, Abaigeal agreed with the statement “written assignments gave me the opportunity to consider multiple historical and sociopolitical contexts of situations” and there were no units with critical reflection in her written assignments. This shows a lack of alignment between Abaigeal’s perceptions and/or understanding of reflection and the content of her written assignments.

Abaigeal wrote about all topics identified in this study using both descriptive writing and descriptive reflection and only used dialogic reflection in reference to “students,” “teaching,” and “lesson planning.” Even though the number of incidences of dialogic reflection was very small (only 6/266 or 2.26% of her total units), there is much to learn from these six units. Half of the dialogic reflection occurred in daily journals, one

written in September and two written in October. There was one unit with dialogic reflection in each of the October Lesson Reflection, November Lesson Reflection, and the PDP reflection. Two open-ended questionnaire questions shed light onto this phenomenon. First, Abaigeal responded that the assignments that encouraged her to reflect the most were “Daily journals during the first half of student teaching and the written reflections of monthly lesson plans.” In a later response she elaborates that the assignments that encouraged her to reflect the least were:

The daily journal entries toward the end of student teaching when our full time teaching was in full swing. With creating lessons on our own and with handling [*sic*] more and more classroom responsibilities, it was more important that we do them well instead of using that time to reflect on the day in writing.

These questionnaire responses help explain why there was dialogic reflection in her September and October daily journals and none in November and December. Five of the six units with dialogic reflection occurred in assignments Abaigeal identified as those that encouraged her to reflect the most.

In common to all three incidences of dialogic reflection in the daily journals was a theme of evaluating something outside of her control. In her October 12 journal Abaigeal evaluated her own teaching and mentioned that what she wanted to change was out of her control:

Today I taught another math lesson. This lesson was on the counting back strategy for subtraction. I thought the lesson went pretty well. I know I can always improve but this lesson was a huge improvement from the last math lesson I taught. I still need to work on keeping everyone engaged at all times which is

difficult. The main issue I have with keeping everyone on task is the setup of the classroom. *The current setup suits Miss C so that is all that matters. When I teach and have my own classroom though, I do not plan on setting up my classroom in that way. It is very difficult to navigate through the classroom without taking some time. The extra time it would take to move around would just allow more students to get off task.* [emphasis added]

In the above unit Abaigeal begins with descriptive writing when she explains what happened (she taught a lesson and some students were not engaged). Then the dialogic reflection is in the italicized portion of the unit. She offers an alternative to how she can keep everyone on task by rearranging the classroom, however, Abaigeal also asserts that this is out of her control as “the current setup suits Miss C so that is all that matters.”

There are four notable entries in Abaigeal’s November journal as they are different from her other entries. On November 14 Abaigeal wrote about a discussion of students’ IEP accommodations and how “Since that discussion, my mentor teacher and I have upheld the code of ethics surrounding the sensitivity of the information provided to us by the special educator.” This entry seems like it was written for the confidentiality section of the portfolio since it was an abrupt change in her discussion topic and style of journal writing. On November 16 Abaigeal had a journal entry that was titled like one of the portfolio sections:

Reflection on Materials and Technology in the Classroom: Another way we incorporate technology into lessons is by using books on CD or tape during reading. The students benefit from hearing the story they are reading on CD in many ways. First, it captures their attention. The story always plays some silly

song at the beginning which gets them bouncing in their seat. Also, the story is read with more enthusiasm than it is read together in class. This helps the students build fluency. While the students are listening to a story on CD, they use their pointer fingers to help them follow along with the story. After going over the rules of these fingers, they really seem to help students want to follow along with the text.

This entry was also attached to her portfolio as documentation of the technology standard. On November 17 Abaigeal wrote about greeting her students in the morning with a smile and on November 18 she wrote about one student's accommodations. The topics of these four journal entries are unique among Abaigeal's journals and she may have written these entries in order to use as documentation in the portfolio.

All of Abaigeal's written units contained descriptive writing or descriptive reflection. Overall, Abaigeal's perceptions of the type of writing do not correspond with the content of her writing. It is interesting to note that five of her six dialogic reflection units were in assignments that Abaigeal identified as one in which she could reflect the most on the survey. In each of her journal entries with dialogic reflection Abaigeal was evaluating an event out of her control. One thing that sets Abaigeal's journal entries apart from those of the other interns is her inclusion of four entries that closely correspond to sections of the portfolio.

Beverly.

Beverly is an elementary education major with a peace studies minor. Outside of her education courses, on the questionnaire she reported reflecting in her Peace Studies Capstone course in which students "are required to reflect on our experiences to create a

final project based on that which has been unanswered previously. The class discussion also revolves around our experiences.” Beverly defines teacher reflection as:

looking back at a day or lesson and deciding what worked or what didn't work. Its [sic] taking into account the learning of each of your students, and whether they are understanding the material, whether through informal or formal assessment. It also means reflecting on what you as a teacher could have done better.

Beverly perceived the daily journal as the assignment that least encouraged her to reflect and identified the journal as busy work because:

Although for some days it was helpful to reflect on the days activities, having to write a daily journal sometimes became tedious when not much changed from day to day. Also, there were certain days when an aspect of teaching (such as time management) would stand out the most as needing reflection, or as a lesson learned, which often was supported as an adequate reflection by *our supervisor who regarded the daily reflections as needing to be focused on one lesson* [emphasis added]. Also, since some days we would not teach more than one DI reading lesson, there would not be as much to reflect on. This could maybe be better if it was every other day, or once a week reflections. (Questionnaire).

Her supervisor’s requirement that the journal focus on one lesson is inconsistent with the handbook description that the journal “spending five to ten minutes at the end of each day reflecting and integrating the day’s events” (Castor College, 2010, p. I-13). Beverly’s supervisor’s requirement may have shaped both Beverly’s perception of the journal assignment and the content of her journals and this will be discussed further in chapter 5.

It is interesting to note that although Beverly said she reflected the least in her journal all of her dialogic reflection units were in the journal assignment.

There were prompts on the questionnaire to gauge interns' perceptions of the type of writing they included in their written work. On the questionnaire Beverly agreed with the statements that the written assignments gave her the opportunity to describe events that occurred, report reasons for events that occurred, and step back from events and consider multiple perspectives, which correspond to descriptive writing, descriptive reflection, and dialogic reflection respectively. Beverly disagreed that she had the opportunity to consider the multiple historical and socio-political contexts of situations. In her written work Beverly did include descriptive writing, descriptive reflection, and dialogic reflection and did not have any critical reflection, consistent with her self-reporting. However, the percentage of her coded units were much higher for descriptive writing (46.25% or 154/333) and descriptive reflection (53.75% or 179/333) than for dialogic reflection (2.40% or 8/333) even though she "agreed" with each statement.

Of the 147 "growth as a teacher/professional" codes in all of the units for all participants, 51 (34.7%) of the codes were assigned to Beverly's writing. Beverly wrote about her learning in several different ways throughout the assignments. Sometimes Beverly wrote in generalities about her learning, for example in her September 7 journal:

Overall, my class is great, and *every day I learn so much more* [emphasis added].

Tomorrow I will be dipping my toes in a little more by going over the vocabulary portion of a DI lesson with one of the groups- I can't wait!

Beverly also frequently wrote about what she learned from watching or talking to her cooperating teacher, one such journal entry follows:

Today was a fairly relaxed day, and my cooperating teacher taught most of the day, taking into account the fact that I have a cold that has left me with only half of a voice. However, one thing that I was extremely aware of as I sat observing lessons is the ability of my cooperating teacher to command the attention of the class. Although I feel like I used the same cues and methods to redirect their attention, their response is much faster to my cooperating teacher. Possibly this comes with time as a seasoned teacher, or maybe the students are more aware than I realized of the difference between “teacher” and “student teacher.” This ability to command and maintain the groups’ attention is something *I will definitely continue to work towards, as I begin to be more aware of how I can make my teaching better* [emphasis added]. (November 9 Journal)

Through observation Beverly sees the difference in her mentor teacher’s success with attention getting strategies and her own and sets a goal for improving her own teaching. Two other ways in which Beverly wrote about her growth were by admitting her areas of weakness or looking at growth over the semester. This unit from the portfolio is an example of both discussing weakness and growth over the semester:

Classroom management is a component of teaching that is both extremely important, and very difficult to master. However, without efficient and effective classroom management, ultimately, students will not learn. If a student is talking, or walking around the classroom, even the most motivated of students will not be able to follow the lesson, not to mention the student who is walking around or talking. That being said, if the classroom management method is disruptive to the lesson, such as calling out a student’s name for redirection (although in some

situations this is necessary) this can also be a detriment to student learning. A very peculiar balance is necessary, and difficult to accomplish. *This is one of the areas where I felt I needed the most improvement, and so it has consistently been something I have worked towards* [emphasis added]. To truly command the attention of a classroom takes a great deal of practice. Upon my cooperating teacher's suggestions, I have tried a variety of strategies, some of which work better than others. *This is a skill that I think will improve over time, and with practice, but is a skill that I have worked very hard on, and will continue to work on in the future* [emphasis added]. I recognize, and understand that being able to command the attention of the class in turn leads to understanding and learning from my students.

Beverly wrote over one third of all of the units about “growth as a teacher/professional.” Her writing about growth included general statements about her learning, reflection on talking to her mentor teacher or observing her mentor teacher teach, admitting her own areas of weakness, and examining her growth over the semester. This emphasis on learning is consistent with Beverly’s response to the questionnaire prompt “Is teacher reflection important?” to which she responded “Teacher reflection is absolutely important. Teachers are always learning, and are always trying to improve their practices, which reflection allows them to do.”

Beverly and Fay both made frequent references to Direct Instruction Programs (DI) for reading and spelling. For the purposes of identifying references I searched for the terms “direct instruction,” “D.I.,” and “DI.” Beverly had explicit references to direct instruction programs in 19 of her journal units and once she mentioned the directed

instruction portion of a math lesson. There was little to no evaluation of DI as a program and/or its impact on students. Out of 19 units, Beverly had just three evaluative comments about DI. In her September 14 journal Beverly wrote:

For the most part, DI seems to be a good method for teaching reading. My concerns previously about this approach was that some kids could be left behind, but now that I have taught with this method more often, I am able to see how this really isn't the case. Each student is expected to partake in the lesson, to read and answer questions both individually and as a group. Also, if a student is not following along in the story or in vocabulary lists, they are required to restart the story, or count it as an error, adding pressure for students to make sure they are actively engaged.

After stating her concerns were alleviated, less than two weeks later Beverly questioned the timed reading checkouts:

I also got to give reading checkouts today for the group that I taught, because in DI every five lessons is a check out lesson. Students are to read about 100 words in one minute with two or less errors, based on a passage they have already read. It was interesting to me to give these quick tests and see on an individual basis some of the students [*sic*] reading abilities. I'm not sure if I completely agree with the use of this timed test however, because it requires the students to read quite quickly. I realize that this indicates that the reader is fluent, but it seems like some students may just be slower readers than others, and would have to repeat the checkout. (September 26 Journal)

Two months later, in the following journal excerpt from November 18, Beverly commented on the effectiveness of the questions in the DI reading program:

I also have become aware of the effectiveness of the questioning strategies from the DI program. Students need to be consistently engaged and following along, because questions change from whole group response to individual questions. Students are also expected to be following along, because they can be called on to read at any moment. This creates a group of students, who need to be engaged in the lesson, and who are following along when reading.

The above excerpts from Beverly are the only evaluation of the DI program and/or teaching strategy in all of the intern assignments reviewed for this study. Of the evaluative comments two are endorsing the DI program and one is questioning the effectiveness of the checkout tests.

Of the elementary interns (Abaigeal, Beverly, Dana, Fay, and Gaby), Beverly and Fay were unique among the participants in mentioning direct instruction programs. Dana also mentioned direct instruction twice but she seemed to be referring to the directed instruction portion a teacher created lesson. Dana made frequent reference to the Wilson Phonics program but never identified it as a Direct Instruction Program. Beverly and Fay were the only two interns working with the second grade at their internship site. Abaigeal was also in a second grade placement but at another school so they may have followed a different curriculum. It is possible that Abaigeal, Dana, and Gaby used direct instruction programs but failed to call them by the names Direct Instruction, DI, or D.I., or it is possible that their internship sites did not use direct instruction programs.

Beverly's daily journals had several other unique attributes. Beverly had 66 journal units coded with "student/teacher relationships," more than any other intern. These 66 units represent over 33% of Beverly's journal units and many of those were units focused on management and control. One example of this is found in a unit from Beverly's November 1 journal in which she reflects on her day:

I also felt like I was *fighting a losing battle* [emphasis added] with KB today. Maybe it was the post-Halloween energy, or the fact that I was alone in the classroom, but from the moment he walked in KB was set on disrupting the class. During his reading lesson, he called out or lay down when being spoken to, when he was supposed to be doing his independent work he continued to say he needed help, even though I told him I wasn't able to help him because I was teaching. Although I went back to him later to go over the problems he had needed help with, he continued to pout for the rest of the day. Trying to follow the correct procedure of the class, I gave him a warning, timeout, and sent him to a different class for timeout. My cooperating teacher is also going to contact his father about his behavior. I'm sure this will be something I will continue to struggle with, but hopefully KB and I will have a better day tomorrow.

In addition to many references to student/teacher relationships, Beverly ended many of her journal entries with statements like "It's been an exciting and tiring week, but I feel like I have learned an incredible amount, and I am pleased to say it was a successful week!" (November 7 Journal). These brief overview statements attributed to many of the units coded with "intern emotions."

In her October journals, Beverly makes frequent mentions of her upcoming solo teaching week. She taught on October 7 when her mentor was absent and then went back to observing her mentor teacher teach parts of the day. It seems that through observation Beverly realized things she did not do well on the day her mentor was absent. For example:

I also have become more aware of areas which I would like to focus on, based on my solo teaching day, one area being having more authority over the classroom. I think sometimes I have trouble commanding the same respect and attention as my teacher, something which I think comes more with time and experience. Although the students do respect me, they still seemed to respond less to me than they would normally with the cooperating teacher. (October 10 Journal)

Occasionally Beverly takes a journal entry to look back on what has happened over time. On September 27 she wrote: “On the eve of a day full of teaching (a reading, math and social studies lesson), I want to reflect slightly on how I feel my teaching experience has gone thus far.” Another example is on October 14:

I’ve decided to take the opportunity in today’s journal entry to reflect on my past week of teaching, as well as my student teaching experience so far. At this point I have taught pretty much each subject (besides science which we will start on Monday), and have been responsible for all routines such as dismissal and homework collection in the morning. I have also shared responsibility with my cooperating teacher for grading and correcting student work. All of these experiences have amounted to me feeling like a genuine contributor to the class that I am in.

Beverly is the only intern who explicitly and periodically looks back on her progress through the semester.

Beverly's perceptions of her writing in the survey were more consistent with the content of her writing than Abaigeal. She had a generally negative perception of the journal assignment. Beverly had the highest percent of units about "growth as a teacher/professional" and "student/teacher relationships" of any participant. She was also the intern with the most references to direct instruction programs and the only intern to evaluate a DI program.

Christine.

Christine was a Spanish major with a certification in secondary education. She defines teacher reflection as "A place where you write down what happened during the class, things that you learned, things that you found effective and ineffective. It's helpful to look back and see what you wrote whenever you need an idea on something" (Questionnaire). Christine refers to reflection as a noun, the place where one records what happened, when all of the other participants defined reflection as a verb. Christine is also the only participant to report that no assignments felt like busy work. On the questionnaire Christine reported that she reflected the most in the journal and lesson reflections.

Like Abaigeal, there is a lack of alignment between Christine's perceptions of the type writing and the content of writing in her assignments. On the survey Christine agreed that she had the opportunity to describe events and report reasons for events, she strongly agreed that she had the opportunity to step back and consider multiple perspectives, and strongly disagreed that she considered the multiple historical and socio-

political contexts of situations corresponding to descriptive writing, descriptive reflection, dialogic reflection, and critical reflection respectively. In reality, Christine was the only intern to use critical reflection, although it was only one unit. Also, all of her 175 units are descriptive writing or reflection even though she only “agreed” with the statements corresponding to those types of writing and she “strongly agreed” with the statement corresponding to dialogic reflection, which are only 2.29% (4/175) of her units.

There were several aspects of Christine’s journals that stood apart from the other participants. Christine made explicit reference to a professor, used a mix of normal and boldfaced type, and was among the interns who had the most evaluation of teaching decisions, perspective taking, and reference to theory within all of the journals.

Only Christine made explicit mention to something her professor said and identified the professor by name. She referenced the same professor twice in journal entries on September 30 and November 22. As part of her September 30 journal entry Christine wrote about a class that she did not like to teach:

... Paula [first name of professor, changed for confidentiality] says that it’s not the kid’s fault. That the teacher must be doing something wrong up there if she can’t motivate the kids. But, I’m thinking in my head, *what am I supposed to do? I can’t want this for you! You have to want it for yourself too!*

In this entry it was as if Christine was responding to a comment that her professor said at another point in time. Since Christine wrote “Paula says” instead of “Paula said” it makes it seem this message was frequently conveyed from Paula to her students and Christine is not referencing a particular conversation. On November 22 Christine described a Thanksgiving lesson that her mentor teacher planned in which they taught students how

to use the Spanish-English dictionary to make posters of what they are thankful for. It appears Christine was referencing a particular conversation or lecture with the same professor (this time referred to by her last name):

.... Before just letting them go with the dictionary though, we did teach them how to use one. It never occurred to me really that there would be someone who didn't know how to use a dictionary and that was something that had to be taught. *It brings me back to an ED course with Dr. James [last name of professor, changed for confidentiality] where she said that we expect kids to just do things like have good study habits, and be organized, when the first step is actually teaching them how to do all these things [emphasis added].* So we taught the kids how to use a dictionary by doing an activity with a copy from inside the dictionary.... No one ever taught me how to use a dictionary and I just learned on my own how to look up words. But there was so much I was missing out on by not knowing how to fully use the tool. I never knew what the little letters next to the words meant (Ex: f= feminine, m= masculine). It was cool to teach the kids how to get the most out of this tool after learning how to use it myself from seeing Ms. M teach the lesson the first time around.

These two units when Christine references a specific professor stand out because no other interns referenced individual professors and what the professor said. Other interns referenced that a particular professor came to observe or referenced learning from a class, for example in Beverly's September 16 journal she wrote:

This made me think of something that we had spoken about in my *functional behavior assessment class* [emphasis added] last night. We talked about how most

of the time when students are “acting out,” to fulfill a need. In KB’s case, it seemed like he needed to fulfill both his belonging and power need, so that he could feel recognized and able to share something that was important to him.

Christine was the only intern to reference specific learning from an individual professor in any of the assignments.

In all of the documents analyzed there were 124 “evaluating a teaching decision” units of which 42 were from Fay and 38 were from Christine. These two interns out of seven account for nearly two thirds of the evaluating a teaching decision units. In her September journal entries Christine does a lot of evaluating her mentor teachers’ decisions. For example,

Ms. M introduced the unit with the warm-up that let them talk about their favorite foods, what they think the stereotypical American food is, and what they think when they think of Latin food. She closed the warm-up by letting them know that by the end of the unit they **would be able to tell their favorite foods and maneuver around a restaurant**, among other things. I thought it was a really good way to start the unit because it lets the kids know what skills they are going to be working on. From a student’s perspective, I think it’s really nice to know where you’re headed in a course and what you’ll be learning. (September 6 Journal)

In addition to evaluating her mentor teachers’ decisions, the above unit is an example of Christine’s use of boldface type throughout her journals and perspective taking.

Christine may have used bold type to help her remember key ideas for later. In her questionnaire response Christine reported that teacher reflection is important because “It

helps you sort through everything going on during the experience. It's nice to have a place to write it all down. It is also helpful afterwards whenever you need an idea on something.” The ideas in boldface type may be those that Christine wants to be able to quickly find at a later time.

The unit above is also one example of Christine taking on the perspective of a student: “From a student’s perspective, I think it’s really nice to know where you’re headed in a course and what you’ll be learning.” Christine is the study participant with the second highest raw number and normalized percent of “perspective taking” after Dana.

One other unique characteristic of Christine’s journal is she was the only intern to explicitly mention a theory or theorist outside of the monthly lesson reflection and portfolio that explicitly scaffold for reference to theory. On October 4 Christine wrote:

Today the first set of 8th graders did the inference taste words, the other 8th grade did the computer lab because they are the level 1 8th graders. The advanced 7th graders did the geography song and the lower level 7th graders did the same. The only comment that I have about today is that **Ms. M is really good about getting suggestions from kids and when they get it wrong, getting answers from someone else. But she doesn’t just top there. She goes back [to the] person who got it wrong to make sure that they know it now that someone has helped them out. I didn’t realize before but this is important to check for understanding but also for dimension 1.** During the lesson she asked the kids to name countries that they wanted to learn in a Spanish. I hadn’t thought about it before, but this is important because **it lets the kids feel like they have a choice**

in what they learn. It makes what their learning directly relevant and interesting to them. Another thing that I wanted to note is that **writing kids names on the board** is really effective. If they have a visual reminder of how in trouble they are, I think it helps keep them from getting that last consequence, lunch detention.

Without explicit prompting to reference a theory, Christine evaluated a teaching decision made by her mentor teacher and explicitly referenced the Dimension of Learning theory.

Overall, Christine's journals, when compared to her peers, included very informal language and unpolished/unedited entries with many spelling and usage errors. Despite the unpolished nature of her writing, the majority of Christine's units were descriptive reflection and she was the only intern to have a unit of critical reflection. There is more exploration of the unit with critical reflection in the responses to the previous research questions. Christine's journal entries stand apart for her references to a professor, use of boldface type, evaluation of teaching decisions, perspective taking, and references to theory.

Dana.

Dana stands apart from the other participants in several interesting ways. First, she was the only special education major to participate in the study. She entered the study site in the Spring of 2010 when the other participants enrolled in the Fall 2008 semester. Additionally, Dana was the only participant to participate in a study abroad program with a specific education focus, to teach English in a rural South African school (Questionnaire).

Dana believes that teacher reflection is:

Reflecting on what happened during the school day that you thought was effective and what was ineffective. It helps the teacher realize what caused success in the classroom so that they can try and replicate and built upon those strategies or circumstances in the future. (Questionnaire)

She also stated teacher reflection as important “because it helps shape your growth as a teacher, which ultimately allows for the greatest success in the classroom for both teacher and students” (Questionnaire).

Like Abaigeal, Beverly, Eva, and Fay, Dana felt that the daily journal encouraged her to reflect the least of any assignment. She also believed the daily journal and cumulative portfolio were busy work, in her words:

Although my daily journal helped me to reflect on what I learned and experienced throughout each school day, it quickly became a burden to do each day after school when I would rather be spending time writing lesson plans or designing activities for the next day. The cumulative portfolio was very tedious to make and it felt like busy work because I did not see it's [*sic*] importance past my exit conference with my professors. (Questionnaire)

Dana seemed to place more value on reflecting orally in a group than in writing alone. On the questionnaire she noted:

I lived in a house with 3 other student teachers during my internship semester and some of my most provoking reflections occurred during the discussions we would have over dinner when we all came home from school. We were able to compare experiences, which allowed me to reflect on my own experiences and how they differed from my roommates. It also gave me the chance to be exposed to

differing viewpoints and ideas that I could incorporate into my own methods and strategies for instruction.

Dana's perception of her type of writing was the most consistent with the content of her writing of any other participant. Dana agreed that the written assignments gave her the opportunity to describe events and report the reasons for those events (descriptive writing and descriptive reflection respectively). She neither agreed nor disagreed that the written assignments gave her the opportunity to step back from the event and consider multiple perspectives (dialogic reflection) and she strongly disagreed that the assignments gave her the opportunity to consider the multiple historical and socio-political contexts of situations (critical reflection). All of Dana's writing was descriptive writing (26.19% or 66/252 units) or descriptive reflection (73.81% or 186/252 units). Dialogic reflection was only 4.37% (11/252) of her units and there was no critical reflection in Dana's assignments.

Overall, Dana's writing is very positive and professionally written in formal academic language with organized paragraphs. She sees the potential in her students and works to let her students shine. Dana also connects her internship experiences to her own elementary education more than any other participant. Dana's writing stands apart from the other participants in her references to classroom technology, explicit perspective taking, and personal investment in student learning.

In all of the data for this study, there are 65 units with the "resource" code of which 22 are in Dana's work. Within the 26 units coded with the "resource" topic in journals, 15 are from Dana's journals. In these units Dana frequently referenced the

Promethean Board both when discussing lessons and use of the board as an incentive for student behavior. For example, in part of her journal entry on November 1 Dana wrote:

Then we moved to the Promethean board to pick out closed vs. vowel-consonant-e words, which perked them back up since they love writing on the board so much, and I was beyond impressed with how well they did picking out the words! Nick even completed the entire worksheet that corresponded with the FlipChart with nearly 100% accuracy! I really feel that the boys have a good understanding of the rules behind vowel-consonant-e words so I think that they are ready to start spelling them tomorrow.

In this unit Dana explained how she used the technology in her classroom and how her students responded to the activity.

Of all the interns in the study, Dana has the most normalized percent and raw number of units in which she takes on the perspective of someone else in the situation. She often takes the perspective of students, para-professionals, and other teachers. On September 26 she wrote:

Today I want to write about the fourth grade math class that we push into....It was apparent that the teacher was overwhelmed and everybody (there are two special educators and a AAA in the room at that time) was trying to help, but students still didn't seem to be getting it. It was very frustrating because the test is on Wednesday and it is extremely hard to not take poor grades personally. *I tried to put myself in that situation and figure out how I would handle a "class meltdown", and especially at this point in my teaching career I think that I too would have become very overwhelmed [emphasis added].* It is very hard to

maintain your patience when so many students are having so many different problems all at the same time, and I really commend the general educator for keeping her cool....

In this journal unit Dana describes the situation in the classroom and then explicitly takes the perspective of the lead teacher.

The above unit is also an example of Dana taking student learning personally, as she did on many occasions. About two weeks later on October 7, Dana wrote:

...The day began as usual with the third grade pullout group, who took their spelling test. Nick did much better on his spelling test but while Ben improved, he did not get a passing score. So it looks like we will be repeating the lesson again next week! Next week's focus will be very intensive syllable separation, knowing the rules for separating syllables, and not putting in extra sounds. I went through the boys' tests and wrote down their errors. I categorized them into three different misconceptions, which we will tackle next week. I am really concerned that the fact that they are not passing this unit is a reflection of my teaching.

Dana's concern about student grades and mastery of material continues through her journal entries. While other interns may blame the students Dana is explicit about what she needs to re-teach and what she needs to do differently to help her students succeed.

Dana's perceptions of her writing are the most consistent with the content of her writing than any other participant discussed thus far. Dana also stands apart in her references to technology, perspective taking, and personal investment in student learning.

Eva.

Eva was a chemistry major with a certification in secondary education and the only participant to intern in a high school. She stated in one questionnaire response:

Teacher reflection is when a teacher does a lesson then reflects on it. For example, making notes on a lesson along with the practice worksheet or documents used is an example of a teacher reflection in order to keep it for the following year and revise the lesson to make it better.

Her definition of reflection is very focused on the lesson itself and how the teacher implemented the lesson. When asked on the questionnaire if teacher reflection is important Eva responded “Yes, teacher reflection is extremely important because it forces the teacher to created [*sic*] better lessons each time the topic is taught,” further emphasizing her focus on the lesson.

Like all of the previously discussed interns except for Dana, Eva’s perceptions of her writing are not consistent with the content of her writing. Eva agreed with the survey statements related to descriptive writing and descriptive reflection and strongly agreed with the statements related to dialogic and critical reflection. Based on Eva’s self-evaluation I would expect to see more dialogic and critical reflection than descriptive writing and descriptive reflection, however, the reverse is true. Of Eva’s 142 units, 30 (21.13%) include descriptive writing, 112 (78.87%) include descriptive reflection, one (0.70%) includes dialogic reflection and no units include critical reflection.

There are two attributes that set Eva’s writing apart from the other participants: mentions of parents/families and repetition of a journal entry. Eva only mentions

parents/families two times in all of her writing; the fewest of any participant, and those units are in the portfolio section related to the standard for home-school relationships. Eva never explicitly mentions parents/families in her journal, whereas each of the other interns makes references to parents/families. One difference between Eva and the other interns is Eva was the only intern placed in a high school.

Two of Eva's October journal entries (October 3 and October 4) contain the same four sentences:

Then at the end I had them do a worksheet to turn in for a grade. I do not enjoy having days where I stand up there for 50 minutes and talk to them, they get bored and it gets boring for me. I enjoy the lesson where I am just the students mentor to steer them in the correct direction of the results that the textbook says, but the students are still coming up with answers and theories alone. However, not all topics in chemistry can be taught by that method.

Eva was the only intern to repeat a string of sentences within the journal. This may have been a mistake or it may have been deliberate action. This may be explained by her questionnaire response in which she responded that she reflected the least in daily journals and "in some of them i [*sic*] reflected but it felt like busy work and I did not put my full attention into it."

Like other interns, Eva's perceptions of her writing are inconsistent with the content of her writing. The notable occurrences in her writing are the lack of references to parents/families and repetition of a string of sentences in two journal entries.

Fay.

Fay was an elementary education major with a Spanish minor. Like Eva, her definition of teacher reflection is very focused on the lesson, in her words teacher reflection is “A reflection on lessons planned, discussing how the lessons went, how the students benefited from the lesson, how they did not and what the teacher should change on their next lessons to further benefit the students” (Questionnaire). She believes reflection is important because “it helps the teacher to learn to make the best and most beneficial lessons for the students based on their experiences” (Questionnaire). Although Fay believes teacher reflection is important, she felt the monthly lesson reflections and daily journal assignments were busy work and she reflected the most in the professional development plan reflection when she was able to look “at the big picture of my experience” (Questionnaire).

Like Dana, Fay’s perceptions of her type of writing were relatively consistent with the content of her writing. She strongly agreed with the statements corresponding to descriptive writing and descriptive reflection, agreed with the statement corresponding to dialogic reflection, and neither agreed nor disagreed with the statement corresponding to critical reflection. Of Fay’s 355 units, 151 (42.54%) include descriptive writing, 204 (57.46%) include descriptive reflection, 10 (2.82%) include dialogic reflection, and no units include critical reflection. Fay agreed with the types of writing that she uses and is neutral to the type of writing she does not use in her assignments.

Three trends in Fay’s writing were frequent evaluation of teaching decisions, explicit mentions of parents/families, and references to direct instruction. Fay had the

most units in which she evaluated a teaching decision of any intern and Christine had the second highest number of units (for more specific information see the above section on Christine). One example of Fay evaluating a teaching decision is in her September monthly lesson reflection:

I then let each group share one way that they had come up with so they could see how many different ways there were to make \$1.00 with just 4 different kinds of coins. This was exciting for them because I had them come up to the board and draw which coins they used and we counted them together as a class. As this started to take a little longer than I had hoped, I started to have students just say what coins they used rather than draw it. I felt bad because I know they were excited to be able to draw on the board, however I didn't want to run out of time. Although this was a lot of fun for the students to do, I would not have each pair share again because it took a little too long and I started to loose students [*sic*] attention. I would instead just call on a couple pairs to come up and draw their findings on the board.

In this example Fay stated what she would do differently next time and explained the rationale behind her decision.

Fay had 17 explicit mentions of parents/families in her journal entries, which is the highest number of units (the second highest, Dana, only had 11 mentions). Fay was in a second grade classroom and from the journal entries it appears that parents were invited into the classroom frequently for "Star Student" presentations, helping with creative lessons, and student birthday celebrations (there were 6 mentions of these activities). In these cases it seems like specific parents were asked to visit class. There were also

opportunities for all parents to be involved like the first day of school, Back to School Night, American Education Week, and daily dismissal (5 mentions of these activities). There were also three instances where Fay mentioned parents helping with student reading or homework at home and posting grades online for parent access. Finally, Fay mentioned three meetings with individual parents to discuss student needs.

Like Beverly, Fay made frequent references to Direct Instruction Programs (DI) for reading and spelling. For the purposes of identifying references I searched for the terms “direct instruction,” “D.I.,” and “DI.” Fay had four units with explicit mentions of direct instruction in her journals and many more references to the routine of reading lessons without always using the term direct instruction. Unlike Beverly, Fay did not evaluate the DI program in her journals.

Fay’s definition of reflection focused on the lesson itself and, like Dana, her perceptions of her types of writing were relatively consistent with the content of her writing. In her writing there were three trends that stood apart from the other interns: the frequency of evaluation of teaching decisions, mentions of parents/families, and direct instruction.

Gaby.

Gaby was an elementary education major with a minor in art. She wrote teacher reflection is “a way for teachers to think about their day and go through everything that happened so that they can understand what went wrong or what went really well and either fix those mistakes or continue doing what works” (Questionnaire). She also stated in her questionnaire response:

Teacher reflection is important so that teachers spend the time to really assess what they did in the classroom and how different lessons went, but it is not necessary to keep a diary of those reflections. I believe that it is possible to reflect on these things without having to write entries every day. Most people I know that actually did keep a journal ended up putting the writing off until the end of a week and made up a lot of what was written.

Gaby's criticism of the journal assignment was discussed previously in the section on research question two. Gaby was unique among the interns because she only wrote three journal entries and the other interns wrote an entry for nearly every day of the semester-long internship.

On the survey, when asked to what extent the written assignments gave her the opportunity to write at the various types of writing she agreed with all of the statements. Like many of the interns, the content of her writing was different than her perception. In Gaby's written assignments 54.55% (48/88) of the units include descriptive writing, 45.45% (40/88) of the units include descriptive reflection, 1.14% (1/88) of the units include dialogic reflection, and no units include critical reflection. There are no topics that stand out in Gaby's writing nor are there any other trends in her writing that set her apart from other interns.

Cross Case Analysis.

Across the seven interns there were various patterns in the frequency of topics discussed and other aspects of their writing as well as intern perceptions about their writing. The majority (5/6) of Abaigeal's dialogic reflection is in the assignments that she identified as those in which she reflected the most. Beverly had the most units that were

coded “growth as a teacher/professional” in all assignments and “student/teacher relationship” codes in the journal. The only intern to make explicit mention of a professor, use boldface type, reference to theory, and use critical reflection in the journal is Christine. Dana has the most references to technology and frequently expressed a personal investment in her students’ learning. Eva had the fewest references to parents and families in all of her assignments where Fay has the most references to parents and families. Gaby stood apart from the other participants because she only wrote three journal entries. Beverly and Fay were the only interns to explicitly mention direct instruction programs. Christine and Fay had the most evaluation of teaching decisions in all of the documents analyzed. Christine and Dana do the most perspective taking in the journal. Dana and Fay’s perceptions of their writing were closest to the content of their writing, followed by Beverly, and the perceptions of Abaigeal, Christine, Eva, and Gaby were not consistent with the content of their writing (see Table 13). There are various patterns within the participants writing as well as perceptions of the assignments. Table 14 summarizes the differences across the interns’ writing.

Table 13

Intern Characteristics, Percentage of Each Type of Writing, and Survey Report About Each Type of Writing

Pseudonym	Education Program	Level of internship placement	College Major	College Minor	GPA Range	Survey descriptive writing	% descriptive writing	Survey descriptive reflection	% descriptive reflection	Survey dialogic reflection	% dialogic reflection	Survey critical reflection	% critical reflection
Abaigeal	Elementary Education	Elementary School	Elementary Education	Women's Studies	3.5-3.74	Strongly Agree	49.26%	Strongly Agree	48.53%	Strongly Agree	2.21%	Agree	0.00%
Beverly	Elementary Education	Elementary School	Elementary Education	Peace Studies	3.5-3.74	Agree	45.29%	Agree	52.35%	Agree	2.35%	Disagree	0.00%
Christine	Secondary Education	Middle School Grades within an Elementary/Middle School	Spanish	-	3.75-4.0	Agree	41.34%	Agree	55.87%	Strongly Agree	2.23%	Disagree	0.56%
Dana	Special Education	Elementary School	Special Education	-	3.75-4.0	Agree	25.10%	Agree	70.72%	Neither agree nor disagree Strongly Agree	4.18%	Strongly disagree	0.00%
Eva	Secondary Education	High School	Chemistry	-	2.75-2.99	Agree	20.98%	Agree	78.32%	Strongly Agree	0.70%	Strongly agree	0.00%
Fay	Elementary Education	Elementary School	Elementary Education	Spanish	3.0-3.24	Strongly Agree	41.37%	Strongly Agree	55.89%	Agree	2.74%	Neither agree nor disagree Agree	0.00%
Gaby	Elementary Education	Elementary School	Elementary Education	Art	3.0-3.24	Agree	53.93%	Agree	44.94%	Agree	1.12%	Agree	0.00%

Table 14

Unique Aspects of Interns' Written Work

Pseudonym	Unique Aspects of Written Work
Abaigeal	<ul style="list-style-type: none"> • Dialogic reflection in the daily journals had a theme of evaluating something outside of her control • Topics of four journal entries are unique among her journals and she may have written these entries in order to use as documentation in the portfolio
Beverly	<ul style="list-style-type: none"> • 51 (34.7%) of the 147 “growth as a teacher/professional” codes in all of the units for all participants were assigned to Beverly • Wrote over one third of all of the units coded “growth as a teacher/professional” • Made frequent references to Direct Instruction Programs (DI) for reading and spelling • Had 66 journal units coded with “student/teacher relationships,” more than any other intern; these 66 units represent over 33% of Beverly’s journal units and many of those were units focused on management and control • Ended many of her journal entries with statements like “It’s been an exciting and tiring week...” which attributed to many of the units coded with “intern emotions” • Only intern who explicitly and periodically looks back on her progress through the semester
Christine	<ul style="list-style-type: none"> • Made explicit references to a professor • Used a mix of normal and boldfaced type in the journal • Was among the interns who had the most evaluation of teaching decisions, perspective taking, and reference to theory within all of the journals • 38 of 124 “evaluating a teaching decision” codes were from Christine
Dana	<ul style="list-style-type: none"> • 22 of the 65 units with the “resource” code are in Dana’s work; in many of the units she makes reference to the Promethean Board in her classroom • Most perspective taking of any intern in the study • Wrote about her personal investment in student learning
Eva	<ul style="list-style-type: none"> • Only 2 mentions of parents/families in all writing, fewest of the participants • Repeats part of a journal entry two days in a row
Fay	<ul style="list-style-type: none"> • Most units of evaluating a teaching decision of any intern in the study • Highest number of parent/family codes of any intern in the study • Frequent mentions of Direct Instruction lessons
Gaby	<ul style="list-style-type: none"> • Only wrote 3 journal entries

Conclusion

This chapter responded to each of the five research questions and presented a variety of tables, figures, and rich quotations as appropriate to support the findings. All three types of reflection were revealed in the internship assignments, however, descriptive reflection is the predominant category of reflection and there is only one unit with critical reflection. The journal and monthly lesson reflections seem to provide the most supports for dialogic and critical reflection. The most common topics in both descriptive reflection and dialogic reflection are “lesson planning and implementing” and “student needs.” There are various patterns across the individual interns’ reflection.

Interwoven in the findings of the study are the themes of intern understanding of reflection, internship semester responsibilities, assignment design, and the role of the college supervisor. The next chapter will further discuss these themes as well as present areas for future research, study limitations, and study contributions.

Chapter 5: Discussion

Prior to this study there was little research that examined the type of writing in assignments completed during the full-time internship semester and the trends over assignments, topics, time, and/or interns that may have a relationship with dialogic and critical reflection. This study addressed the gap in the research. The previous chapter provided a thorough overview of the findings of the study. This study revealed that interns write across all three categories of reflection (descriptive, dialogic, and critical) within assignments (Dinkelman, 2000; Hatton & Smith, 1995). Descriptive reflection was the most common category of reflection represented in the study (95.8%), followed by dialogic reflection (4.1%) and critical reflection (0.1%). Sociocultural theory reminds us that we cannot examine the findings about written reflection in isolation, but instead we must look to the larger context. Interwoven in the findings of the study are the themes of intern understanding of reflection, internship semester responsibilities, assignment design, and the role of the college supervisor. These themes highlight important elements of the conceptual framework presented in chapter 1.

This chapter will examine each of the four themes along with the connections to types of writing. Throughout the discussion connections will be made to relevant literature and areas for future research will be suggested. Finally, study limitations and contributions will be presented.

Intern Understanding of Reflection

Findings in this study show that interns' have only a basic understanding of reflection. The definitions of reflection generated by participants in this study support Ward and McCotter's (2004) belief that interns often "assume reflection is an

introspective after-the-fact description of teaching” (p. 255) (see also Dymont & O’Connell, 2010). This simplistic conception of reflection aligns with Hatton and Smith’s (1995) definitions of descriptive writing and descriptive reflection that were used in this study. Therefore, the propensity of descriptive reflection in this study, over 95%, may be a result of interns’ understanding of reflection as supported by their definitions of reflection revealed in the previous chapter. Since the interns’ have simplistic personal definitions of reflection, it makes sense that they do not have a nuanced understanding of dialogic and critical reflection. Interns’ lack of understanding of dialogic and critical reflection may explain why these categories of reflection are infrequent (less than 5% of the reflection in the study). In light of intern definitions of reflection, it is of particular relevance to this study to further discuss two phenomenon: 1) intern reports of the content of their writing, and 2) intern reports of assignments in which they reflect the most and least.

In the questionnaire prompt about types of writing, interns responded to the statement: “The written assignments gave me the opportunity to consider the multiple historical and socio-political contexts of situations” on a five-point Likert scale. The question served to gauge intern perceptions about engaging in critical reflection. The seven intern responses were spread among the five-point Likert scale options. Most notably, Christine, the only intern to have an excerpt with critical reflection, disagreed with the statement and the three interns who strongly agreed or agreed had no excerpts with critical reflection.

There are several possible explanations for this lack of alignment between intern reports of critical reflection and the content of their writing; the first two are related to

intern understanding. One explanation is the interns interpreted the statement “historical and socio-political contexts of situations” differently than the researcher. Another possible explanation is that interns who have more capacity to engage in written critical reflection may see a lack of opportunity to do so in the assignments. Perhaps interns with a propensity to engage in critical reflection felt restricted by the assignment requirements. Additionally, Rovegno’s (1992) findings suggest that intern epistemology may be a barrier to critical reflection. It is possible that intern epistemology caused the difference between interns’ perception of their reflection and the content of their reflection; however, intern epistemology is beyond the scope of the current study. A final possible reason is the interns may have felt that they should have considered these contexts and thus responded on the questionnaire to make themselves look better or please the researcher.

In chapter 4, it was noted that five of Abaigeal’s six units with dialogic reflection were in assignments that she reported on the questionnaire as those that required her to reflect the most. This led to further investigation to see if this was a trend across interns to associate dialogic and critical reflection with “reflecting the most” and descriptive writing and reflection with “reflecting the least.” Across interns there is inconsistency with intern perceptions of assignments as helping them reflect the most or least and assignments with units of dialogic and critical reflection. If teacher educators use intern feedback about which assignments helped them to reflect the most or least to make programmatic changes, then teacher educators risk eliminating assignments that facilitate dialogic and critical reflection.

Future research could follow undergraduate education students through the process of learning how to write dialogic and critical reflections and explore the

subsequent level of alignment between perceptions and content of writing after specific education on the subject. This area of research has potential because there is evidence that teacher education programs have the ability to influence student interns' ability to reflect (Tessema, 2008; Valli, 1997). Just telling preservice teachers to reflect is not sufficient; reflection should be modeled and guided (Loughran, 2002). Although one year is a short time span in which to transform reflection (Harrison & Lee, 2011), in the related field of reflection in nursing education, Epp (2008) found evidence that it is possible for undergraduate students to reflect at higher levels and reflective skills can be developed throughout undergraduate education.

Internship Semester Responsibilities

During the internship semester interns are responsible for planning and teaching lessons, grading student work, attending teacher meetings, and completing internship assignments among other responsibilities. Teacher educators should be sensitive to the fact that reflecting on teaching requires time, experience, and effort (Pedro, 2006). As interns complete reflection assignments they may be limited by time or they may reflect orally instead of in writing.

Descriptive reflection is most likely the easiest reflection for interns to write as it is a simple retelling of the event and only requires them to report what happened and why. Similarly, descriptive reflection may be the least time intensive category of reflection for interns to write as it does not require the same depth of thought, mulling about, and challenging beliefs required for dialogic and critical reflection. Dialogic and critical reflection may take more mental energy and time than interns devote to their written assignments during the busy internship semester. Teacher educators must be very

deliberate about the opportunities they assign for reflection in order to capitalize on the little time interns have in order to maximize intern learning.

The questionnaire did reveal that some interns felt that the journal was busy work and instead reflected orally with their peers. As described in chapter 4, on the questionnaire Dana and Gaby both mentioned reflecting with their housemates. Dana reported that reflecting with her peers “gave [her] the chance to be exposed to differing viewpoints and ideas that [she] could incorporate into [her] own methods and strategies for instruction.” Gaby reported that she stopped writing journals because no one was reading them. These responses are consistent with Hammerness et al. (2005) finding that in peer groups “Both the feedback and the collegial natures of the process appear to stimulate reflection and greater skill development” (p. 380). Reflecting with peers can transcend the preservice teaching experience as new teachers typically have more access to other teachers than to a mentor, coach, or supervisor. Perhaps the combination of the written journal as a daily requirement amongst other seemingly more pressing responsibilities, like lesson planning and grading, and the perception that the journal was not being read by supervisors contributed to interns reflecting orally instead of in writing. While reflecting with peers may be helpful for the interns, reflecting without feedback from an expert may lead the interns to develop problematic understandings or practices. Therefore, while developing the practice of reflecting is important, preparation programs may benefit from being very deliberate in their approach to teaching reflection and supporting deep reflective practices.

In their study, McGarr and Moody (2010) reduced the number of journal entries required of interns and found “two significant benefits: allowing students to spend more

time on planning and preparation and allowing them to reflect more deeply on the issues they confronted” (p. 585). Perhaps reducing the requirements for journal reflections may also shift intern perceptions of the assignment so it feels less like busy work and more like a worthwhile learning exercise. Future research can explore the impact of reducing intern written assignments (in addition to the journal) on giving interns the time to engage in written dialogic and critical reflection and the related perceptions of the assignments.

Assignment Design

Teacher educators are not designing assignments that support the candidates’ ability to reflect. There are unique attributes of the portfolio, monthly lesson reflection, and journal assignments that may be related to the type of writing found within the coding units for each assignment. Sewall (2009) found that different assignment structures generate different types of preservice teacher reflection. Even though the study site emphasized reflection in the program goals and “critical reflection” on assignment rubrics, perhaps part of the reason interns are not consistently reflecting at the dialogic and critical types is because teacher educators are not creating assignments that inspire these types of reflection.

Portfolio.

Some assignment prompts, like the portfolio in this study, may actually lead a candidate to respond with descriptive reflection. The portfolio was the only assignment without any dialogic or critical reflection. There are several potential causes for the lack of dialogic and critical reflection, three of which are the prompt, the rubric, and its use as an evaluation tool.

The portfolio assignment prompt may have been best served with descriptive writing and descriptive reflection. Interns may have interpreted the best way to document the portfolio standards were to report what they did in the classroom (descriptive writing) and why they made decisions (descriptive reflection).

One of the four portfolio scoring rubrics is titled “insight and reflection” and details that high performance is “In depth and critical reflections are included throughout the portfolio” (Castor College, 2010, p. I-19), however, there is no definition of critical reflection. If the teacher educators define “critical reflection” on the portfolio rubric perhaps it will impact intern reflection. Whipp (2003) found that when she provided students a rubric that includes “entry considers political and/or social issues embedded in situation or problem” (p. 327) among other scaffolds her students engaged in more dialogic and critical reflection than in semesters when she did not provide the scaffolds.

Finally, the portfolio is presented as an evaluation tool to use at the intern’s final exit conference and as a tool to be used at job interviews. Interns may be hesitant to include dialogic and critical reflection in this evaluation tool because it may be perceived as showing a lack of confidence. To step back and examine different perspectives may be interpreted as self-doubt and referencing historical and socio-political contexts may be interpreted as abdicating responsibility for events in the classroom, qualities interns may intentionally avoid when being graded or applying for a job. Future research can investigate changes in the portfolio description and/or prompts and the associated dialogic and critical reflection.

Journal.

In this study, the daily journal assignment contained the only unit with critical reflection and the second highest amount of dialogic reflection. The prompt to “*also understand the ‘whys,’ ‘hows,’ and ‘what ifs,’ in the room*” (Castor College, 2010, p. I-13) and the more personal nature of the assignment may have provided a support for the dialogic and critical reflection. The journal is the least structured assignment so perhaps there is the most leeway for exploration of topics, ideas, and events that the intern sees as important. Another unique attribute of the journal are the daily entries that may capture intern thoughts, feelings, and concerns in the moment. Conversely, the daily nature may be overwhelming and burdensome to interns. It is possible that because of the requirement to write every day, the dialogic and critical reflection get lost among the rushed descriptive writing and descriptive reflection entries. The assignment prompt also instructs interns to reflect for five to ten minutes per day, which may not be enough time to write dialogic and critical reflection. Additionally, the assignment may be perceived as more of a private document and less as a tool for evaluation of the interns’ progress so there may be less intern censoring of their written reflection. Journals may inhibit reflection when interns are too focused on the assignment grade (McGarr & Moody, 2010). In addition to looking further into the above ideas, future research can investigate if more specific prompts or sample journals with dialogic and critical reflection result in even higher percentages of coding units with dialogic and critical reflection.

Although Dinkelman (2000) found that critical reflection is a reasonable goal of preservice teacher education, as discussed earlier, there was only one coding unit with

critical reflection in this study, Christine's September 30 journal. The unit is also the only one in the entire body of data in which an intern mentions her own or her students' race or socioeconomic status. An excerpt from the journal entry is below:

...Honestly, I HATE that period. HATE, HATE, HATE, HATE, HATE that period (8th graders). Like, I *dread* when it's time for me to teach them anything that is a lesson of mine and I have to deal with their BS. I know that's a horrible thing to say, but it's true! Paula [first name of professor, changed for confidentiality] says that it's not the kid's fault. That the teacher must be doing something wrong up there if she can't motivate the kids. But, I'm thinking in my head, *what am I supposed to do? I can't want this for you! You have to want it for yourself too!* Ms. M [mentor teacher] put it in perspective for me though in a way that I understood a lot better. She said that we just have to find a way to get through to them. For some it takes phone calls home. For others it takes detentions. We just have to find the way to make them change their attitude. I also expressed that it's hard for me to sympathize with these kids. I'm not a rich white teacher sitting here thinking "oh these poor underprivileged kids, with their race issues and their socioeconomic gap problems." NO! I'm sitting here thinking "If I can do this, you can do it. I am a black Latina from a poor socioeconomic background damn it, and if I can do it you can too! *Epecially* since what you're complaining about is something STUPID like having to pick up your PENCIL to TAKE DOWN A NOTE! You're not SOLVING anything! What the hell is so hard?!" - ___ - . Any who, moral of the story is that I have no empathy AT ALL. The reason I got into teaching was to motivate kids because none of my

high school friends made it anywhere, but I don't know how to make you want better for yourself...

There are several reasons why Christine may have engaged in critical reflection in the journal. The journal was the only daily writing requirement and the prompt was fairly open ended. Christine may have captured these emotions and concerns in the journal because they were fresh in her mind on the day she was writing. The loosely defined assignment may have provided Christine a blank canvas on which she could record her feelings. Additionally, Christine may have felt that the journal was not read, scrutinized, and graded by supervisors in the same way as other assignments, although the assignment description states that the journal should be available for supervisors to read. It is possible that the journal, as the least structured assignment and daily requirement, gave Christine the space to explore the issue she found problematic and therefore engage in critical reflection.

Christine's unit with critical reflection also seems unedited and uncensored. In her questionnaire Christine wrote reflection is "a place where you write down what happened during the class, things that you learned, things that you found effective and ineffective. It's helpful to look back and see what you wrote whenever you need an idea on something." Perhaps her use of capital letters and italicized type is to draw emphasis to certain points for her future reference. The use of unprofessional language (BS, damn, hell, stupid, hate) is the most extreme example of this in any coded unit. Perhaps this entry is an uncensored window into Christine's feelings, as it appears unedited and not polished for outside scrutiny, thus providing the required space for critical reflection. It is particularly noteworthy that Christine was the only intern to find space for critical

reflection in the journal. Perhaps other interns have different needs related to writing critical reflection or the other interns interpreted the assignment differently and therefore were not comfortable turning in a journal entry in an uncensored and unedited form. The written reflection units are simultaneously products of the assignment, the intern, the supervisor, and the context.

The critical reflection coding unit is also unique because it is the only one in which an intern mentions her own or her students' race or socioeconomic status.

Christine shared her challenge sympathizing with her students:

I'm not a rich white teacher sitting here thinking "oh these poor underprivileged kids, with their race issues and their socioeconomic gap problems." NO! I'm sitting here thinking "If I can do this, you can do it. I am a black Latina from a poor socioeconomic background damn it, and if I can do it you can too!

(September 30 Journal)

In the excerpt she mentions her own race and socioeconomic status and juxtaposed with "rich white teachers." Christine's "If I can do this, you can do it" spirit reveals her perceptions of the similarities between her background situation and her students'.

Perhaps the similarities Christine sees between her race and socioeconomic status and that of her students promotes her critical reflection on the issue. It is particularly relevant that of the seven participants in this study, Christine, the only intern of color, is the only intern to engage in written critical reflection and the only intern to mention race or socioeconomic status within written work. Perhaps an intern's ability to acknowledge race, SES, and/or structural inequality is related to her own racial identity development. Future research should further explore this phenomenon and examine the relationship

between interns' race, racial identity development, and propensity to engage in critical reflection within written assignments.

Although Christine brings up the issues of race, class, and student achievement in the coding unit with critical reflection, she does not fully explore these issues within the unit or any other. One could question whether or not Christine's journal entry represents all that she is able to explore in terms of race, class, and student achievement. However, this cannot be determined. Perhaps with additional support from assignment structure or possibly a mentor teacher or college supervisor, Christine may have been able to reflect at the high end of her zone of proximal development and more consistently engage in written critical reflection in her written assignments. Future research can examine how teacher educators and/or assignments can facilitate continued exploration of critical issues.

The topic codes for the coding unit of critical reflection were "student/teacher relationships," "collaboration," and "intern emotions." These findings did not support Nagle's (2009) suggestion that teachers more often reached critical reflection in writing when they focused on student learning. In fact, in this study student learning was a common topic of descriptive writing, descriptive reflection, and dialogic reflection and not a topic in critical reflection. It is of particular relevance to this study that interns did not engage in critical reflection when discussing student learning. Therefore, guiding interns to focus on student learning is not a sufficient support for critical reflection.

Monthly lesson reflection.

In the current study, only 4.1% of the coding units with reflection contain dialogic reflection. The assignment with the highest percentage of units with dialogic reflection

was the monthly video reflection in which interns were asked to review a video of their teaching and then write a reflection. As Sewall (2009) found, different assignment structures can support different categories of reflection. The dialogic reflection may have been supported by the use of the video as a guide to help interns step back and consider the lesson from other perspectives. The data suggest that reflecting after viewing a video of teaching is most likely to result in dialogic reflection. Future research can investigate other prompts to see if different or additional prompts reveal preservice teacher reflection at the dialogic or critical types.

As discussed in the previous section, Christine's unit with critical reflection addressed her students' culture and SES, however, prompting for reflection about culture is also not sufficient to promote written critical reflection. In the December lesson reflection interns were supposed to address "the needs of students from diverse cultural backgrounds" (Castor College, 2010, p. II-25). Abaigeal discussed how her lesson helped her diverse students relate to each other, Dana described incorporating information about another culture into her lesson without mention of the different cultural backgrounds of her students, and Christine wrote about pairing fast and slow students. These three very different responses demonstrate the interns' varying interpretation of the prompt and the interns' inability to directly respond to the prompt about culture. It is troubling that some of the interns could not discuss their students' culture. With the diverse population in schools today it is essential that teachers understand and can teach students with different cultural backgrounds. There are several possible reasons why interns did not address culture in the December Lesson Reflection. First, interns may not understand what culture is or how students from different cultural backgrounds may have different needs

in the classroom. Linked to this, interns may be not be receiving opportunities to learn how to plan, instruct and reflect on their ability to teach students from different backgrounds. Second, interns own racial identity development may impact their comfort level discussing culture in a graded assignment. They may feel hesitant or unsure of how to approach the subject appropriately. It is particularly noteworthy that none of the interns' responses included critical reflection even though the prompt specifically addressed students' diverse cultural backgrounds. This finding is significant because it shows that although Christine wrote critical reflection related to race in the journal entry discussed previously, prompting students to write about culture is not a sufficient support for critical reflection. Considering the diverse student composition in America's schools today it is troubling that even when prompted to write about students' cultural backgrounds interns did not do so nor did they engage in critical reflection about student culture.

Role of the College Supervisor

Sociocultural theory reminds us that the writing does not exist alone, but as a product of the relationship between the intern (author) and college supervisor (evaluator). Three areas related to the role of the supervisor are vulnerability required for dialogic and critical reflection, intern perceptions of supervisor expectations for assignments, and the supervisor as evaluator.

There is vulnerability required for dialogic and critical reflection. If the intern and college supervisor do not have a strong, trusting relationship, then descriptive reflection may be the safest category of written reflection because interns are not opening up themselves, their actions, and their beliefs up to the scrutiny of the supervisor. Interns

may fear that they appear insensitive, racist, or classist as they engage in dialogic or critical reflection. There is a level of trust that must be established between the intern and college supervisor in order for dialogic and critical reflection to be safe activities for interns. It is unclear whether or not that level of trust was established with interns and supervisors in this study.

Intern comments on the questionnaire and drastically different monthly lesson reflection assignments illuminate the possibility that differences in written work across interns may be a result of intern perceptions of their supervisors' expectations. In the questionnaire Beverly wrote that her supervisor "regarded the daily reflections as needing to be focused on one lesson." However, that expectation was not captured in the assignment description found within the Internship Handbook. Additionally, interns had very different December lesson reflections representing different interpretations of the assignment prompt. Interns may adjust their responses to written assignments to meet their supervisors' expectations, whether real or perceived, in order to improve their internship grades. Information about supervisors was not collected in this study and therefore further analysis related to supervisors is beyond the scope of the study.

It may be hard for interns to show weakness in a graded assignment out of fear that it could lower their grade. In their review of the literature, McGarr and Moody (2010) found that journals may inhibit reflection if the intern is overly focused on the assignment grade.

There is research in the field about the supervisor's role in intern reflection. May and Zimpher (1986) examine three theoretical perspectives on supervision. Dinkelman (2000) found that participants were more motivated to reflect critically when their

supervisor was attentive to critically reflective issues. This suggests that supervisors have the ability to shape the frames with which preservice teachers reflect. In their review of the research, Dymont and O'Connell (2010) found "the skills required to generate higher levels of reflection require more than simply practice; they also require guidance, critique, mentoring, and reinforcement" (p. 238) which can come from a supervisor. Finally, Bates, Ramirez, and Dirts (2009) focused on the supervisor's role in facilitating the development of critical reflection in preservice teachers. They found "an understanding of critical reflection is something that builds over time for student teachers through exposure to their supervisor's practice" and "explicitly modeling, guiding, and communicating the importance of critical reflection in teaching practice through supervisory stance helps teacher candidates develop critically reflective practices and understandings" (Bates, Ramirez, & Dirts, 2009, p. 99). This may be a challenge for supervisors as it implies the supervisor is both an expert at reflection and an expert at teaching the process of reflection. Professional development for supervisors can focus on developing a common vision of reflection and assignments for all supervisors as well as training on how to facilitate intern reflection. An area for future research is to look deeper into the supervisor's role in shaping intern perceptions about assignments and categories of reflection.

Intern understanding of reflection, internship semester responsibilities, assignment design, and college supervisors all played important roles in the findings for this study. In addition to further examining each of these themes independently, future research should continue to study the combined impact of these aspects of sociocultural theory.

Study Limitations

As with any research, the results of this study need to be considered along with the limitations of the study. The purpose of this study is to address the gap in the research by examining the type of writing in assignments interns completed during the full-time internship semester. The primary limitation is that this study only investigates the interns written reflection in assignments. It is possible that interns engaged in reflection in ways that were not considered by this study such as conversations with mentors, supervisors, and peers as well as thinking alone. Thus, the findings can only be used to make claims about intern written reflection.

With just seven participants from one institution, the number of participants is too few to generalize conclusions. The findings are suggestive of possible avenues and designs for future research. Future research can follow similar procedures at different institutions of higher education with larger samples to compare findings across studies.

Another limitation was the data for the current study was created for another purpose, intern assignments during the full-time internship. Although this is also a strength of the research because of the unobtrusive data collection, there are limitations on the data collected. The limitations of the data are that it was captured after the fact and it is possible that interns reflected in ways other than their written course assignments. Future researchers could be non-participant observers through the internship semester and observe exchanges between interns and their mentor teachers, college supervisors, and/or other interns, in order to add another dimension to data collected and influence the potential findings.

Document coding decisions were made to ensure trustworthiness in the coding and analysis, however, the coding has potential to obscure the findings. Since multiple type of writing codes and multiple topic codes were assigned to coding units it is sometimes unclear which topics were the focus of each type of writing. The conclusions can only be drawn that a particular topic was written about in the same paragraph coding unit as the identified type of writing. Despite these limitations, this study has significant contributions to the field of preservice teacher reflection.

Contributions

This study has a number of implications for practice, theory, and policy. The implications for practice include several ways of thinking about how to better structure learning and opportunities for dialogic and critical reflection. Although intern written assignments revealed all three categories of reflection, descriptive reflection represented the vast majority of the reflection. If teacher educators want interns to engage in written dialogic and critical reflection then they must provide different supports to help students. First, structured reflection throughout the education coursework could develop dialogic reflection as a habit for interns. Throughout college coursework teacher educators can design reflection assignments so preservice teachers first explain the events (descriptive writing or descriptive reflection), then step back and consider several possible reasons for the events, and finally consider the historical and socio-political contexts. Second, in addition to assignment design, teacher educators and college supervisors should model dialogic and critical reflection. In order to send consistent messages about reflection to preservice teachers throughout the program, teacher educators and supervisors should use the same terminology and emphasis on reflection throughout all coursework and the

internship semester. This may require a series of professional development programs for teacher educators and supervisors in which they develop programmatic definitions of reflection, create examples of reflection, and practice modeling reflection. Additionally, it is important for educators to determine the intent of the reflective assignment (descriptive, dialogic, or critical reflection) and then give interns specific guidance about the reflection, including defining terms like “critical reflection.” In this study, one of the grading criteria on the portfolio rubric was “critical reflection,” however, the term “critical reflection” was not defined anywhere in the intern handbook and the only type of reflection revealed in the intern portfolios was descriptive reflection. Programs that place emphasis on reflection should continually evaluate their progress towards the goal of creating reflective practitioners. The findings of this study can help teacher educators create more robust assignments for interns. Another possible solution is to streamline the reflection required during the internship semester to give interns more time and space to engage in dialogic and critical reflection (see McGarr & Moody, 2010). Finally, before changing or eliminating assignments it is important that teacher educators refer to both intern feedback and a thorough analysis of the content of the writing for the assignment. This study found that if program administrators make decisions based solely on intern perceptions about busy work and assignments in which they reflected the least then programs risk eliminating assignments that reveal dialogic and critical reflection. This study has vast implications for the practice of teacher education.

This study has two primary contributions to theory. First, the study supports existing research in the field that interns engage in all three categories of reflection (Dinkelman, 2000; Hatton & Smith, 1995). Second, this study did not find a single

condition that is necessary and sufficient for supporting dialogic and critical reflection. Teacher education is a complex undertaking because of the interaction between interns, teacher education programs, and internship school sites. For this reason research on preservice teacher reflection should continue to use sociocultural theory.

Finally, this study has implications for policy. Accreditation requirements for teacher education programs and certification requirements for new teachers should consider the desired category of reflection for requirements, such as portfolios, and ensure that the structures in place support intern reflection in the desired category.

Conclusion

This study uses the sociocultural theoretical perspective along with case study and content analysis methodologies to address the research questions. It addressed the gap in the research by examining the type of writing in assignments completed during the full-time internship semester and the trends over assignments, topics, time, and/or interns that may have a relationship with dialogic and critical reflection. Despite the selection of the study site for its programmatic commitments to reflection and institutional commitments to social justice, dialogic and critical reflection are uncommon in intern written reflection. This study did not find a single condition, topic, or assignment that guarantees written dialogic or critical reflection. Instead, this study found that intern written dialogic and critical reflection appears to be an outgrowth of a combination of factors including, but not limited to, intern understanding of reflection, internship semester responsibilities, assignment design, and the role of the college supervisor.

Despite years of research about reflection and teacher education programs inserting the word “reflection” into assignment titles and descriptions there is little intern

dialogic and critical reflection in written assignments. Although it is possible for interns to write dialogic and critical reflections, it is more typical for interns to engage in descriptive writing and descriptive reflection. Teacher educators must be intentional about how they model and describe reflection in order to develop interns who are able to engage in written dialogic and critical reflection. Assignments should be created in such a way that they not only use the word reflection, but provide ample opportunities and supports for interns to reflect while completing the assignment requirements. Developing practitioners who can engage in dialogic and critical reflection is essential to creating a teaching force that is able to view teaching and learning situations from different perspectives and examine education within the broader social and political contexts in order to educate the diverse student body in America's schools.

Appendix A: Summary of Empirical Research

Table A1

Summary Information for Empirical Research (Year, Researcher Positionality, Population, Methodology, Data Sources, and Findings)

Author	Year	Researcher Positionality	Population	Methodology	Data Sources	Findings
Dinkelmann	2000	Instructor and supervisor	3 secondary social studies preservice teachers	Case study, Action research	interviews, classroom observation visits, field notes, interactions through semester, written artifacts (pre-observation form, 5 journals, unit plans, lesson plans, handouts, evaluation tools)	Critical reflection is a reasonable goal of preservice teacher education
Rovegno	1992	Observer	1 preservice physical education teacher	Constant comparison (p. 494)	class observations, interviews, student work	Preservice teacher epistemology is a barrier to reflection
Hatton & Smith	1995	Teacher	60 undergraduate teacher education students	Content analysis	written reports, self-evaluations, videotapes of microteaching, interviews	Four types of writing, dialogic reflection is often preceded by descriptive reflection
Whipp	2003	Teacher	23 students in spring class, 17 students in fall class, juniors and seniors	Design experiment	electronic discussion postings (148 in the spring and 108 in the fall), written student surveys, and a reflective portfolio assignment (p. 323)	With modeling and guidance students in education classes are more likely to reach higher levels of reflection
Sewall	2009	Supervisor	8 preservice secondary English candidates	Constant comparison analysis	Audiotapes of supervisor/novice teacher lesson debriefs with field notes and pre-and-post interviews	Assignment design influences the type of preservice teacher reflection
Nagle	2009	Teacher	9 preservice teachers in middle/high school placements	Content analysis	Vermont Teacher Licensure Portfolios	Preservice teachers more often reach the level of critical reflection in writing when they focus on student learning
Giovannelli	2003	Not explicit	55 teacher candidates in elementary ed undergraduate program at public university	Hypothesis testing	teacher candidate survey to measure reflectivity, survey of teaching effectiveness questionnaires completed by field instructors	There is a significant relationship between reflective disposition and effective teaching behaviors

Appendix B: Questionnaire

***1. Thank you for participating in this study.**

Please enter your participant code for the questionnaire.

2. How old are you?

- 19
- 20
- 21
- 22
- 23

Other (please specify)

3. What is your sex?

- Male
- Female

4. What is your race/ethnicity? Select all that apply.

- American Indian or Alaskan Native
- Asian
- Non-Hispanic Black or African American
- Hispanic
- Native Hawaiian or Other Pacific Islander
- Non-Hispanic White or Caucasian

Other (please specify)

5. What is your undergraduate GPA?

- 1.99 or below
- 2.0-2.24
- 2.25-2.49
- 2.5-2.74
- 2.75-2.99
- 3.0-3.24
- 3.25-3.49
- 3.5-3.74
- 3.75-4.0

6. When did you first enter this college?

- Fall 2007
- Spring 2008
- Fall 2008
- Spring 2009
- Fall 2009
- Spring 2010

Other (please specify)

7. What is your anticipated graduation date?

- December 2011
- May 2012
- December 2012
- May 2013

Other (please specify)

8. In which program(s) are you enrolled?

- Elementary Education
- Secondary Education
- Special Education

9. What major(s) or minor(s) are you pursuing in addition to education?

Major(s):

Minor(s):

10. Did you study abroad?

- Yes
- No

11. Where did you study abroad?**12. When did you study abroad?**

- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> January 2009 | <input type="checkbox"/> Summer 2010 |
| <input type="checkbox"/> Spring 2009 | <input type="checkbox"/> Fall 2010 |
| <input type="checkbox"/> Fall 2009 | <input type="checkbox"/> January 2011 |
| <input type="checkbox"/> January 2010 | <input type="checkbox"/> Spring 2011 |
| <input type="checkbox"/> Spring 2010 | <input type="checkbox"/> Summer 2011 |

Other (please specify)

13. How long was your study abroad experience?

- 1-4 weeks
 1 semester
 1 year

Other (please specify)

14. Was there a specific focus for your study abroad program?**15. What was the most significant for your learning in your study abroad program?**

16. Throughout your education coursework how much opportunity have you had to do the following? Mark 1 per row.

	None	Touched on briefly	Spent time discussing or doing	Explored in some depth	Extensive opportunity
Reflect in classroom discussions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflect on your field work experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflect in writing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Outside of your education courses, did any of your coursework emphasize reflection?

- Yes
- No

18. For coursework outside of the Education Department that emphasized reflection please briefly describe the course and how reflection was emphasized.

19. Where did you complete your full-time teaching internship?

20. How was your internship school similar to or different from your own school experience?

21. Which assignment(s) during your internship had the largest impact on your practice? Explain.

22. Were there any assignments during your internship that felt like "busy work"?

- Yes
- No

23. Which assignments felt like busy work? Why?

- Professional Development Plan and Reflection
- Daily Journal
- Monthly Lesson Plans with Reflections
- Monthly Video Lessons with Reflections
- Cumulative Portfolio

Why?

24. What is teacher reflection?

25. To what extent did you reflect on your teaching experience with the following people. Please mark one per row.

	daily	weekly	monthly	never
Alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With your mentor teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With your college supervisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With other teacher interns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With your non-intern friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With your family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Is teacher reflection important? Why or why not?

27. To what extent do you agree with each of the following statements about the assignments during your internship semester? Mark 1 per row.

The written assignments gave me the opportunity to...

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
think about student learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
think about teaching strategies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
think about standardized testing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
think about education policy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
think about classroom procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
describe events that occurred.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
report reasons for events that occurred.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
step back from the event and consider multiple perspectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
consider the multiple historical and socio-political contexts of situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. Which written assignments during your internship semester encouraged you to reflect the most?

29. Which written assignments during your internship semester encouraged you to reflect the least?

30. Do you have any further comments about reflection throughout your internship semester?

References

- Amobi, F. A. (2005). Preservice teachers' reflectivity on the sequence and consequences of teaching actions in a microteaching experience. *Teacher Education Quarterly*, 32(1), 115-130. Retrieved from EBSCOhost.
- Bates, A. J., Ramirez, L., & Drits, D. (2009). Connecting university supervision and critical reflection: Mentoring and modeling. *Teacher Educator*, 44(2), 90-112. Retrieved from EBSCOhost.
- Calderhead, J. (1992). The role of reflection in learning to teach. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques* (pp. 139-146). NY: State University of New York.
- Castor College (2010). Internship handbook for students, supervisors, and cooperating teachers.
- Chaiklin, S. (2003). The zone of proximal development in Vygotsky's analysis of learning and instruction. In A. Kozulin, B. Gindis, V.S. Ageyev, & S.M. Miller (Eds.) *Vygotsky's educational theory in cultural context* (pp. 39--64). New York: Cambridge University Press. Retrieved from <http://books.google.com/books?hl=en&lr=&id=mfCHutwHT-cC&oi=fnd&pg=PR11&dq=sociocultural+theory&ots=ufnWpdqTry&sig=n0hqaEs1nj6CGANld-w0HJlvyMw#v=onepage&q=sociocultural%20theory&f=false>
- Collin, S., Karsenti, T., & Komis, V. (2013). Reflective practice in initial teacher training: Critiques and perspectives. *Reflective Practice: International and Multidisciplinary Perspectives*, 14(1), 104-117.
- Copeland, W. D., & Birmingham, C. (1993). The reflective practitioner in teaching:

- Toward a research agenda. *Teaching and Teacher Education*, 9(4), 347-359.
- Creswell, J. W. (2003). *Research Design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Danielson, L. (2008). Making reflective practice more concrete through reflective decision making. *The Educational Forum*, 72(2), 129-137.
- Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*. San Francisco: Jossey-Bass Publishers.
- Dewey, J. (1910) *How we think*. NY: D.C. Heath & Co.
- Denton, D. (2011). Reflection and learning: Characteristics, obstacles, and implications. *Educational Philosophy and Theory*. 43(8), 838-852. doi: 10.1111/j.1469-5812.2009.00600.x
- Dinkelman, T. (2000). An inquiry into the development of critical reflection in secondary student teachers. *Teaching and Teacher Education*. 16(2000). 195-222.
- Dyment, J. E., & O'Connell, T. S. (2010). The quality of reflection in student journals: A review of limiting and enabling factors. *Innovative Higher Education*, 35(4), 233-244. Retrieved from EBSCOhost.
- Edwards, G., & Thomas, G. (2010). Can reflective practice be taught?. *Educational Studies*, 36(4), 403-414. Retrieved from EBSCOhost.
- Epp, S. (2008). The value of reflective journaling in undergraduate nursing education: A literature review. *International Journal of Nursing Studies*. 45, 1379-1388. Retrieved from ScinceDirect.
- Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record*, 103(6), 1013-1055.

- Giovannelli, M. (2003). Relationship between reflective disposition toward teaching and effective teaching. *The Journal of Educational Research*, 96(5), 293 - 309.
Retrieved from <http://www.jstor.org/stable/27542445>
- Hammerness, K., Darling-Hammond, L., & Bransford, J. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 358-389). San Francisco, CA: Jossey-Bass.
- Harrison, J. K., & Lee, R. (2011). Exploring the use of critical incident analysis and the professional learning conversation in an initial teacher education programme. *Journal of Education for Teaching: International Research and Pedagogy*, 37(2), 199-217. Retrieved from EBSCOhost.
- Hatton, N. & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching & Teacher Education*, 11(1), pp.33-49.
- Jacobs, J. (2006). Supervision for social justice: Supporting critical reflection. *Teacher Education Quarterly*, 33(4), 23-39. Retrieved from EBSCOhost.
- Jaramillo, J. A. (1996). Vygotsky's sociocultural theory and contributions to the development of constructivist curricula. *Education*, 117(1), 133-140. Retrieved from EBSCOhost.
- John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist*, 31(3/4), 191-206. Retrieved from EBSCOhost.
- Kagan, D. M. (1992). Professional Growth among Preservice and Beginning Teachers. *Review of Educational Research*, 62(2), 129-69. Retrieved from EBSCOhost.

- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage. Retrieved from <http://books.google.com/books?hl=en&lr=&id=q657o3M3C8cC&oi=fnd&pg=PA3&dq=content+analysis&ots=bK9cyZJcAW&sig=jxENCFyuUP2gc9A6F3m4KisVy0I#v=onepage&q&f=false>
- Larrivee, B. (2000). Transforming teaching practice: Becoming a critically reflective teacher. *Reflective Practice*, 1(3), 293–307.
- Lin, M., & Lucey, T. A. (2010). Individual and group reflection strategies: What we learned from preservice teachers. *Multicultural Education*, 18(1), 51-54. Retrieved from EBSCOhost.
- Loughran, J. J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33–43.
- Loughran, J.J. (2006). *Developing a pedagogy of teacher education: Understanding teaching and learning about teaching*. London: Routledge.
- Mahn, H. (1999). Vygotsky's methodological contribution to sociocultural theory. *Remedial and Special Education*, 20(6), 341-350.
doi:10.1177/074193259902000607
- May, W.T. & Zimpher, N.L. (1986). An examination of three theoretical perspectives on supervision: Perceptions of preservice field supervision. *Journal of Curriculum and Supervision*, 1(2), 85-99.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- McCaleb, J., Borko, H., & Arends, R. (1992). Reflection, research, and repertoire in the

- masters certification program at the university of Maryland. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques* (pp. 40-64). NY: State University of New York.
- McDonald, M. A. (2008). The pedagogy of assignments in social justice teacher education. *Equity & Excellence in Education*, 41(2), 151-167. Retrieved from EBSCOhost.
- McGarr, O. & Moody, J. (2010). Scaffolding or stifling? The influences of journal requirements on students' engagement in reflective practice. *Reflective Practice*. 11(5), 579-591. doi: 10.1080/14623943.2010.516968.
- McLaughlin, T. H. (1999). Beyond the reflective teacher. *Educational Philosophy and Theory*, 31: 9–25. doi: 10.1111/j.1469-5812.1999.tb00371.x
- Nagle, J.F. (2009). Becoming a reflective practitioner in the age of accountability. *The Educational Forum*, 73 (1), 76-86. Retrieved October 27, 2009, from <http://www.informaworld.com/10.1080/00131720802539697>
- Noffke, S.E., and Brennan, M. (2005). The dimensions of reflection: A conceptual and contextual analysis. *International Journal of Progressive Education*. 1(3), 58-78.
- Ostorga, A. N. (2006). Developing teachers who are reflective practitioners: A complex process. *Issues in Teacher Education*. 15(2), 5-20.
- Pedro, J. (2006). Taking reflection into the real world of teaching. *Kappa Delta Pi Record*, 42(3), 129-132.
- Rodgers, C. (2002). Defining reflection: another look at John Dewey and reflective thinking. *Teachers College Record*, 104(4), 842-866. Retrieved from <http://www.tcrecord.org/library>

- Rovegno, I. (1992). Learning to reflect on teaching: A case study of one preservice physical education teacher. *The Elementary School Journal*, 92(4), 491-510. Retrieved from <http://www.jstor.org/stable/1002013>
- Schön, D.A. (1983). *The reflective practioner: How professionals think in action*. United States: Basic Books.
- Schön, D.A. (1987). *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass Publishers.
- Sewall, M. (2009). Transforming supervision: Using video elicitation to support preservice teacher-directed reflective conversations. *Issues in Teacher Education*, 18(2), 11-30. Retrieved from EBSCOhost.
- Shandomo, H. M. (2010). The role of critical reflection in teacher education. *School-University Partnerships*, 4(1), 101-113. Retrieved from EBSCOhost.
- Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher* 15(2): 4-14.
- Spouse, J. (2001). Bridging theory and practice in the supervisory relationship: a sociocultural perspective. *Journal of Advanced Nursing*, 33(4), 512. Retrieved from EBSCOhost.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, California: Sage. Retrieved from http://books.google.com/books?id=ApGdBx76b9kC&printsec=frontcover&dq=stake+1995&hl=en&src=bmrr&ei=a3MwTpKZB4e00AH6rb2FAw&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCkQ6AEwAA#v=onepage&q&f=false
- Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research &*

- Evaluation*, 7(17). Retrieved July 22, 2011 from <http://PAREonline.net/getvn.asp?v=7&n=17> .
- Tessema, K. (2008). An exploration for a critical practicum pedagogy: Dialogical relationships and reflections among a group of student teachers. *Educational Action Research*, 16(3), 345-360. Retrieved from EBSCOhost.
- Thorne, S. L. (2005). Epistemology, politics, and ethics in sociocultural theory. *Modern Language Journal*, 89(3), 393-409. doi:10.1111/j.1540-4781.2005.00313.x
- Tom, A.R. (1992). Foreword. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques* (pp. vii-x). NY: State University of New York.
- Trilokekar, R. D. & Kukar, P. (2011). Disorienting experiences during study abroad: Reflections of pre-service teacher candidates. *Teaching and Teacher Education*, 27, 1141-1150. doi: 10.1016/j.tate.2011.06.002
- Valli, L. (Ed.). (1992). *Reflective teacher education: Cases and critiques*. NY: State University of New York.
- Valli, L. (1997). Listening to other voices: A description of teacher reflection in the United States. *Peabody Journal of Education*, 72(1):67-88. Retrieved from [http://www.jstor.org.proxy-um.researchport.umd.edu/sici?origin=sfx%3Asfx&sici=0161-956X\(1997\)72%3A1%3C67%3ALTOVAD%3E2.0.CO%3B2-Z&cookieSet=1](http://www.jstor.org.proxy-um.researchport.umd.edu/sici?origin=sfx%3Asfx&sici=0161-956X(1997)72%3A1%3C67%3ALTOVAD%3E2.0.CO%3B2-Z&cookieSet=1)
- Vygotsky, L.S. (1997). Interaction between learning and development. In M. Gauvianian & M. Cole (Eds.), *Readings on the development of children* 2nd ed. (pp. 29-36). New York: W.H. Freeman and Company. Retrieved from <http://www.simplypsychology.org/vygotsky78.pdf>

Ward, J., & McCotter, S. (2004). Reflection as a visible outcome for preservice teachers.

Teaching and Teacher Education, 20, 243–257.

Wertsch, J. V., del Rio, P., & Alvarez, A. (1995). Sociocultural studies: history, action,

and mediation. In J.V. Wertsch, P. del Rio, & A. Alvarez (Eds.), *Sociocultural*

studies of mind (pp. 1-36). New York: Cambridge University Press. Retrieved

from [http://books.google.com/books?id=r5-](http://books.google.com/books?id=r5-VtL7zl8IC&printsec=frontcover&dq=sociocultural+studies+of+the+mind+1995&hl=en&ei=6s8JTt_xJaOv0AGfuOSxAQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CC0Q6AEwAA#v=onepage&q=sociocultural%20studies%20of%20the%20mind%201995&f=false)

[VtL7zl8IC&printsec=frontcover&dq=sociocultural+studies+of+the+mind+1995&](http://books.google.com/books?id=r5-VtL7zl8IC&printsec=frontcover&dq=sociocultural+studies+of+the+mind+1995&hl=en&ei=6s8JTt_xJaOv0AGfuOSxAQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CC0Q6AEwAA#v=onepage&q=sociocultural%20studies%20of%20the%20mind%201995&f=false)

[hl=en&ei=6s8JTt_xJaOv0AGfuOSxAQ&sa=X&oi=book_result&ct=result&res-](http://books.google.com/books?id=r5-VtL7zl8IC&printsec=frontcover&dq=sociocultural+studies+of+the+mind+1995&hl=en&ei=6s8JTt_xJaOv0AGfuOSxAQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CC0Q6AEwAA#v=onepage&q=sociocultural%20studies%20of%20the%20mind%201995&f=false)

[um=1&ved=0CC0Q6AEwAA#v=onepage&q=sociocultural%20studies%20of%2](http://books.google.com/books?id=r5-VtL7zl8IC&printsec=frontcover&dq=sociocultural+studies+of+the+mind+1995&hl=en&ei=6s8JTt_xJaOv0AGfuOSxAQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CC0Q6AEwAA#v=onepage&q=sociocultural%20studies%20of%20the%20mind%201995&f=false)

[0the%20mind%201995&f=false](http://books.google.com/books?id=r5-VtL7zl8IC&printsec=frontcover&dq=sociocultural+studies+of+the+mind+1995&hl=en&ei=6s8JTt_xJaOv0AGfuOSxAQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CC0Q6AEwAA#v=onepage&q=sociocultural%20studies%20of%20the%20mind%201995&f=false)

Whipp, J.L. (2003). Scaffolding critical reflection in online discussions: Helping

prospective teachers think deeply about field experiences in urban schools.

Journal of Teacher Education 54(4). Pp. 321-333. DOI:

10.1177/0022487103255010

Yin, R.K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks,

CA: Sage. Retrieved from

[http://books.google.com/books?id=BWea_9ZGQMwC&printsec=frontcover#v=one-](http://books.google.com/books?id=BWea_9ZGQMwC&printsec=frontcover#v=onepage&q&f=false)

[page&q&f=false](http://books.google.com/books?id=BWea_9ZGQMwC&printsec=frontcover#v=onepage&q&f=false)

Yin, R. K. (2006). Case study methods. In J. L. Green, G. Camilli, & P. B. Moore (Eds.),

Handbook of complementary methods in educational research (pp. 279-298).

Mahwah, NJ: Lawrence Erlbaum Associates.

Yost, D. S. (2006). Reflection and Self-Efficacy: Enhancing the Retention of Qualified

Teachers from a Teacher Education Perspective. *Teacher Education Quarterly*,

33(4), 59-76. Retrieved from EBSCOhost.

Zeichner, K. (1994). Research on teaching thinking and different views on reflective practice in teaching and teacher education. In Carlgren, I., Handal G., Vaage, S. (Eds.), *Teachers' minds and actions: Research on teachers' thinking and practice* (pp. 9-26). Bristol, PA: The Falmer Press.

Zeichner, K. M. & Liston, D. P. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 57(1), 23-48.

Zeichner, K. M. & Liston, D. P. (1996). *Reflective teaching: An introduction*. Mahwah, New Jersey: Lawrence Erlbaum Associates Inc.