DEVELOPING AN INQUIRY-ORIENTED APPROACH TO TEACHING THROUGH VIDEOTAPE ANALYSIS

A dissertation submitted to the Kent State University College and Graduate School of Education, Health, and Human Services in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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Constituting a mandatory component of teacher education programs, field experiences offer preservice teachers the opportunity to observe in-service teachers as well as plan and teach lessons in authentic settings; however, participating in these activities does not necessarily result in preservice teachers’ developing teaching and learning competencies. One essential aspect of field experiences that constructively impacts preservice teachers is indeed the opportunity to reflect upon, inquire about, analyze, and discuss their teaching in order to enhance their practice.

The purpose of this qualitative study was to explore how preservice teachers used the seven processes (being videotaped, watching one’s video, selecting a clip, providing a rationale, crafting questions about their practice, meeting in the form of a video club, and responding to exit slips) of videotape analysis to develop an inquiry-oriented approach to their teaching and learning and reflective thinking about their teaching and learning. This study was conducted within the context of a video club, a researched professional development activity with documented benefits.

A qualitative case study approach was used to describe the participation of and interactions among four preservice teachers during their first field experience where they taught lessons at a field school. I videotaped lessons taught by the 4 participants, who selected portions that were viewed during video club meetings. All participants met to
view, analyze, and discuss the video clips. Data were obtained through videotaped recordings of lessons, observations, interviews, transcripts, memos, exit slips, and artifacts.

Findings established that each of the seven processes contributed in different ways to help these participants develop an inquiry-oriented approach to their teaching and learning as well as develop their reflective thinking about their practice. The seven processes were interconnected and created a framework that helped these participants investigate their teaching and learning as well as develop their ability to engage in reflective thinking. In addition, I found that my role as a facilitator assisted in the participants’ learning.

**Key words:** videotape analysis, video club, preservice teachers, field experience, reflective thinking, noticings
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CHAPTER I

INTRODUCTION

Providing preservice teachers with opportunities to practice teaching during field experiences, reflect on the development of their practice, and observe the practice of others are central components of teacher education programs. Teacher educators and researchers have advocated the inclusion of field experiences in order to provide preservice teachers with opportunities to merge theory and practice and create dynamic learning experiences (Baumgartner, Koerner, & Rust, 2002; McShane Becher & Ade, 1982; Zeichner & Teitelbaum, 1982). Denton (1982) argued, “The rationale for placing emphasis on early field experiences is associated with teacher educators’ desire to make their programs more realistic, practical, and stimulating” (p. 19). Developing teacher education programs that include pragmatic and dynamic experiences is a noteworthy motive to consider when designing field experiences. Teacher educators need to develop and incorporate strategies and experiences during field experiences in order to create significant teaching and learning opportunities for preservice teachers that aid in the development of skills related to critical thinking, collaboration, reflection, and inquiry.

Providing preservice teachers with meaningful experiences during their education is a challenging yet attainable endeavor. Dewey (1938) contended that although some experiences may be lively and entertaining, they exist only to perpetuate existing ideas and practices, not to assist in the development of new knowledge and understanding. Preservice teachers may often view field experiences as enjoyable, but some critics have
asserted that they lack curricular goals and objectives, fail to bridge the gap between
theory and practice (Graham, 2006; Zeichner, 1987), and merely socialize preservice
teachers into existing school cultures. Others have shown that field experiences provide a
wealth of opportunities for future educators because they provide preservice teachers the
occasion to practice, develop, learn from others, and question their teaching (Cochran-
Smith & Lytle, 1993; Dewey, 1933). Despite these conflicting views both critics and
proponents have maintained that field experience has a place in teacher education
programs, but its structure and implementation are points of contention.

The preparation of teachers involves reflection, that is, helping preservice teachers
think about teaching and learning. According to Schon (1987) teachers need to think
about their practice as a way to make sense of uncertain situations and events. He also
held that teachers must engage in two types of reflection: reflection-in-action and
reflection-on-action. Reflection-on-action takes place during the teaching of a lesson
whereas reflection-in-action takes place after a lesson is taught. Both forms of reflection
commence with teachers recognizing a problem they have observed and moving to
assessing the situation, analyzing possible courses of action, and attempting to alter the
situation. Preservice teachers should also engage in these forms of reflection yet may
need assistance in developing the skills to actively think in and on action and need
opportunities to practice these skills.

The act of observation is another facet of teacher education in which preservice
teachers are required to watch the teaching of others. Although viewing the teaching
practices of others can be a beneficial activity, researchers and teacher educators should
also consider providing preservice teachers with opportunities to view themselves and their peers. In addition to viewing, they should be provided with modeling and scaffolding during observation of themselves and others in order to observe and locate moments and events of significance and to develop questions pertaining to their practice. Incorporating videotape analysis and participating in a video club during the field experience may provide preservice teachers an opportunity to participate in a meaningful activity that can help them develop an inquiry-oriented attitude towards their teaching and learning, foster reflection, and promote collaboration among preservice teachers.

Benefits of Video

Sherin (2004) discussed historical applications of video in teacher education, stating that theoretical structures in education and technological advances guided how video was used. Sherin also asserted that most of these uses ignore the aspects of video that generate helpful applications for teachers. For example, video has been used to replace live classroom observations without regard to how the latter might present other viewpoints not possible to detect during videotaped observations.

Sherin (2004) stated that teachers may appreciate some additional features of video, which yield three primary benefits. First, video provides permanent evidence of classroom events, enabling teachers to view and review a particular portion of the lesson to analyze a specific moment more closely. Second, Sherin (2004) stated that video can be gathered, condensed, and restructured into a layout that is unlike its initial composition. Teachers can collect, edit, and use video excerpts that focus on certain topics, such as classroom transitions or giving directions, without having to view the
entire lesson. Third, video enables teachers to think about their practice in different ways; for example, they can analyze video in order to study how students think about a particular issue or how students work in certain situations. These benefits of video have the capacity to help teachers decipher and reflect upon classroom interactions.

The continued use and varied applications of video in teacher education highlight its potential. Historical applications of video may not have fully capitalized on all its benefits, but one specific approach to using video, videotape analysis in the context of a video club, may incorporate all three.

**Video Club: An Effective Use of Video**

A video club is a group that includes preservice or in-service teachers who meet to view and discuss videotaped segments of their teaching (Sherin & Han, 2004) in order to notice, reflect upon, ask questions about, discuss, and seek solutions to significant classroom events and practices. I have elected to study how watching videotaped recordings of one’s practice may help develop an inquiry-oriented approach to teaching in the context of a video club because of its documented success with in-service teachers. Research on video clubs has verified their effectiveness in helping in-service teachers reflect upon their practice, ask questions about their teaching, and develop a community of learners who encourage and facilitate growth (Sherin, 2000, 2003; Sherin & Han, 2004; Sherin & van Es, 2005; Tochon, 1999; van Es & Sherin, 2008).

**Reflection**

A number of studies have reported how video clubs encourage reflective thinking (Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; Tochon, 1999; van Es &
Sherin, 2008). Teachers who participate in reflection are able to understand their practice better and are able to apply this information to future choices (van Es & Sherin, 2008). Those who participated in video clubs demonstrated reflective thinking by noticing important classroom events, interpreting the events, and applying the knowledge from those interpretations to inform future choices (Sherin & van Es, 2005; Tochon, 1999; van Es & Sherin, 2008).

**Asking Questions**

Additional proof of the benefits of video clubs has derived from studies illustrating the ability of teachers to ask questions about their teaching (Sherin, 2000, 2003; Sherin & Han, 2004; van Es & Sherin, 2008) to investigate their practice. Teachers who met in video clubs were able to examine students’ ideas closely and interpret student thinking (Sherin, 2000; Sherin & Han). These new insights enabled teachers to make educational choices based on students’ remarks and actions (Sherin, 2000) instead of relying solely on standard assessments to determine students’ comprehension.

**Developing a Community of Learners**

Other evidence of the effectiveness of video clubs has been the product of studies that demonstrate how video clubs foster the development of a community of learners (Sherin, 2000, 2003; Sherin & Han, 2004; Thomas, Wineburg, Grossman, Myhre, & Woolworth, 1998; Tochon, 1999). Video clubs provide a space for teachers to gather in order to examine, discuss, and reflect upon their teaching (Sherin, 2000, 2003; Sherin & Han, 2004; Tochon, 1999). Sherin and Han reported that video clubs encourage teachers to work collectively in order to improve their practice and learn from one another.
Statement and Significance of the Problem

Video clubs are a documented method of professional development organized to encourage reflective thinking, foster collaboration, and promote inquiry into one’s practice; furthermore, studies show that reflection, collaboration, and inquiry contribute to teachers’ development and professional knowledge. Research on video clubs indicates that teachers who participate in them are able to identify significant classroom events, interpret student thinking, reflect upon their practice, ask questions about their teaching, and learn from colleagues (Sherin, 2000, 2003; Sherin & Han, 2004; Tochon, 1999; van Es & Sherin, 2008).

I have found no studies that investigated how preservice teachers may benefit from participating in videotape analysis in the form of a video club during the first time they teach at a field school; consequently, this research has the potential to provide information pertaining to preservice teachers’ ability to identify and discuss classroom events, develop questions about their practice, and seek resolutions to the queries they make during their first field experience where they teach. In addition, this research may contribute to an understanding of the reflective thinking of preservice teachers and may provide the education community with insights into how videotape analysis can be used during field experiences to aid preservice teachers in studying their own practice. Following this line of reasoning, I studied the noticings, reflections, and questions of preservice teachers in the context of a video club. The rationale for this study was to describe preservice teachers’ ability to notice and discuss classroom events in order to develop questions about their practice.
To accomplish this task, I performed a qualitative study of the lived experiences of four preservice teachers as they participated in a video club during their first field experience where they taught at a field school. My study coincided with the participants’ 16 week fall semester teaching methods course, 8 weeks of which were dedicated to videotaping three of their lessons. The participants were videotaped during the teaching of their lessons. They then viewed, selected, and shared a segment of their videotaped lesson with the other participants, engaged in discussions, documented their noticings, and reflected upon their experiences over the course of the study. Questions about their practice emerged through the discussions and reflections.

Research Question

The following question will direct my study:

How do the seven processes (being videotaped, viewing one’s lesson, selecting a clip, providing a rationale, asking questions about teaching, meeting in the form of a video club, and exit slips) pertaining to videotape analysis contribute, if at all, to preservice teachers’ ability to develop:

(a) an inquiry-oriented approach to teaching and learning?

(b) reflective thinking pertaining to their teaching and learning?

Definition of Terms

_Inquiry-oriented approach_ to teaching and learning involves noticing, reflecting upon, asking questions about, and seeking resolutions to significant classroom events and practices.
An in-service teacher is a licensed educator currently employed by a school district.

A noticing (noun) is an event or occurrence witnessed by a participant while viewing a videotaped lesson.

A preservice teacher is a college student seeking an education degree and currently enrolled in methods courses.

A video club is a group that includes preservice or in-service teachers who meet to view and discuss videotaped segments of their teaching (Sherin & Han, 2004).

Videotape analysis involves noticing, discussing, and asking questions about one’s teaching following the viewing of videotaped lessons of one’s practice.
CHAPTER II

REVIEW OF LITERATURE

Introduction

In this literature review I examined relevant research on key components of this study: field experiences, reflection, and the use of video in teacher education. Relevant studies of field experiences helped me determine their ideal characteristics, strengths, and weaknesses. A background in reflection was essential because of its prominent role in teacher education, and research pertaining to videotape analysis has reinforced the central focus of this research study.

Field Experiences

One element of teacher education deemed particularly valuable is the field experience component, which can vary in length and design (Conant, 1963; Cruickshank & Armaline, 1986; Goodman, 1985; Johnston, 1994; Moore, 2003). Colleges and universities use state licensure requirements as a guide when determining the length of time students spend at field schools. Junior and senior education students, enrolled in methods courses, participate in field experiences as part of their course requirements. Proponents have stated, “These early field experiences play a crucial role in the preparation of teachers” (Anderson, Barksdale, & Hite, 2005, p. 97). Logically created field experiences can provide future teachers the opportunity to use, integrate, and strengthen ideas they study during education courses (Baumgartner, Koerner, & Rust, 2002; Darling-Hammond, Hammerness, Grossman, Rust, & Shulman, 2005; Denton,
1982), thus integrating theory with practice. Moore (2003) acknowledged the need for quality experiences during this vital phase in teacher education, calling for the inclusion of experiences that promote critical thinking and reflection. Field experiences hold great potential for providing preservice teachers the opportunity to “practice instructional decision making and reflective practices” (Moore, 2003, p. 31) instead of a singular focus on procedures and routine tasks. Preservice teachers may develop an inquiry-oriented approach to teaching and learning, a highly desirable effect of the field experience, as a result of learning to reflect and make appropriate instructional decisions.

Johnston (1994) observed the “urgent need to conceptualize more adequately how these experiences contribute to learning to teach” (p. 199). Although Johnston and other researchers have delineated the inadequacies of field experiences, in that they do not link theory and practice (Graham, 2006; Zeichner, 1987), lack curricular goals and objectives, and assimilate preservice teachers into existing school cultures (Denton, 1982; Hollingsworth, 1988; Zeichner, 1980; Zeichner & Liston, 1987), field experience is generally viewed as a pivotal component of teacher education programs (Conant, 1963; Cruickshank & Armaline, 1986; Goodman, 1985; Johnston, 1994; Moore, 2003). Further analysis of the role of field experience in the teaching and learning process is necessary in order to reveal and better understand areas needing improvement. Johnston (1994) concluded that “experience alone is not enough. It is the thought and subsequent action associated with the experience which determines its value in the learning process” (p. 207).
Purposes of Field Experience

Introducing prospective teachers to the complexities of the classroom during field experiences has the potential to increase their insight into the teaching and learning process. Proponents of field experiences have maintained that they provide preservice teachers with the opportunity to work with diverse groups of students in varied settings, allow for practice, develop collaborative relationships with mentor teachers, expose them to classroom and school culture (Albers & Goodman, 1999; Valli, 1996; Zeichner & Teitelbaum, 1982), and receive feedback on their developing practice (Shin, Wilkins, & Ainsworth, 2006).

Albers and Goodman’s (1999) research focused on developing relationships among cooperating teachers, university instructors, and preservice teachers during field experiences. The field experience they studied was part of a semester-long secondary reading course. Preservice teachers spent a minimum of 30 hours working with a cooperating teacher over the 9-week period. The researchers developed relationships with cooperating teachers by (a) regularly meeting with them to discuss and design the field experience, (b) sharing information about the preservice teachers, (c) moving their reading course from the university to the field school, (d) inviting cooperating teachers to talk with the preservice teachers during class; (e) encouraging cooperating teachers to participate in class sessions, and (f) continually communicating with cooperating teachers about the progress of the preservice teachers. The researchers, serving also as the university instructors, developed good relationships with their preservice teachers by
integrating classroom concerns into the reading course, meeting with students outside of class, and communicating via email.

Albers and Goodman (1999) found that developing relationships between mentor teachers and preservice teachers, the university instructors and the mentor teachers, and the preservice teachers and the university instructors enhanced the field experience for the preservice teachers. They reported “shar[ing] authentic professional discourse with their cooperating teachers” (p. 114) on topics such as subject content, relationships with students, and learning experiences. These on-going conversations provided preservice teachers with feedback as well as an opportunity to reflect on their practice. Communication between the preservice teacher and the cooperating teacher is vital in supplying the preservice teacher with suggestions, praise, and questions about practice that may lead to reflection and development (Albers & Goodman, 1999). The researchers also found that clearly communicating and developing mutual goals and expectations for preservice teachers and cooperating teachers enabled all parties participating in the field experience to understand their role and purpose. The relationships among these individuals set the stage for a genuine learning experience, highlighting the importance of communication and relationships. This research did not examine the relationship among the preservice teachers themselves. Since relationships play a vital role in field experiences, so investigating the interactions among preservice teachers may be advantageous.
The Role of Observation in Field Experiences

One aspect of field experience includes preservice teachers observing cooperating teachers or peers (Anderson et al., 2005; Bowman & McCormick, 2000; Hasbrouck, 1997; Murphy, 1962); however, simply observing an experienced teacher may not necessarily help preservice teachers learn how to teach (Ben-Peretz & Rumney, 1991). Providing preservice teachers with direction on how and what to observe (Anderson, et al., 2005; Bowman & McCormick, 2000; Englert & Sugai, 1983; Flanders, 1970; Florio-Ruane, 1990; Murphy; Santagata, Zannoni, & Stigler, 2007) may help them improve their teaching practice.

Anderson et al. (2005) researched 34 preservice teachers’ observations of both cooperating teachers and peers during a field experience. Preservice teachers participated in unguided observations of their cooperating teachers and instructor-guided observations of their peers. In the former they simply recorded useful methods used by the cooperating teacher; whereas in the latter they observed and collected data using subjective descriptions and checklists. The peer observation sessions required the preservice teacher and the peer to meet before the lesson to discuss its content and behaviors on which the preservice teacher wanted the observer to focus. After the preservice teacher taught the lesson, she or he and the peer met to receive feedback, analyze the data, and discuss the findings. Preservice teachers were also required to (a) write in a journal to encourage reflective thinking about the field experience, (b) write an outline of their lesson, and (c) respond to questions that asked them to focus on what they learned from their conference with their cooperating teacher or peer and the notes and data the observer recorded during
the lesson. Findings suggest that the preservice teachers mainly focused on pedagogy and classroom management when they took part in unguided observations of cooperating teachers. Preservice teachers praised the peer observation experience and discussed specific pedagogical learning and management skills when they participated in the guided observation sessions. Observing peers during field experiences after receiving guidance in how to observe may be instrumental in increasing the benefits of field experiences for preservice teachers.

Teaching preservice teachers how to observe, ask questions, discuss, and analyze the teaching and learning process may help them develop professional knowledge about their practice. Simply placing preservice teachers in classrooms and telling them to observe or assuming they know what to do may not aid in the learning process. Santagata et al. (2007) brought this issue to the forefront in their research with over 100 preservice teachers. These researchers found that when preservice teachers are exposed to teaching, they may make assumptions about or misinterpret what they witnessed. They also claimed that preservice teachers need guidance in how to observe teaching in order to make learning possible and relevant.

Santagata et al. (2007) researched preservice teachers enrolled in a videotaped lesson analysis course during their field experience. The aim of the course was to aid preservice teachers in developing and connecting learning goals, understanding student behavior and learning, and implementing teaching strategies by analyzing videotaped lessons that were recorded for an international study. Preservice teachers viewed videotaped lessons and were asked to state learning objectives, student behavior and
learning, and teaching strategies and approaches. Discussion sessions and scaffolding occurred simultaneously with these viewings. Pre- and posttests and surveys were used to determine the extent to which preservice teachers were able to comment on and analyze classroom instruction. Findings suggest that the preservice teachers were better able to articulate and elaborate on what they observed, ask more critical questions about the teaching and learning process, and suggest more alternative teaching and learning strategies after the discussion sessions and scaffolding took place. An additional beneficial finding was shown when “preservice teachers commented that the observation framework learned during the course was a useful tool for their live field-experience observations” (Santagata et al., 2007, p. 138). Providing preservice teachers with opportunities to (a) develop their observation and critical thinking skills, (b) link theory and practice, (c) attach meaning to student behavior, and (d) ask questions about what they witness may enable them to develop critical thinking skills during their field experience.

Summary

Field experiences will likely remain a significant component in teacher education for the foreseeable future. They should provide preservice teachers the chance to (a) practice instructional decision making, (b) develop collaborative relationships with mentor teachers (Albers & Goodman, 1992), (c) receive feedback on their developing practice (Shin et al., 2006), (d) observe cooperating teachers and peers (Anderson et al., 2005), and (e) analyze classroom instruction to link theory and practice (Santagata et al.,
Teacher educators must be aware of these key attributes of meaningful field experiences and work toward incorporating and cultivating them in their programs.

Reflection in Teacher Education

Teachers make decisions regarding complex problems that require creative and critical thinking skills on a daily basis. Future teachers may become “unthinking conformists” (Valli, 1997, p. 73) if teacher education programs focus solely on standardized skills and neglect to encourage thinking about these skills. Hatton and Smith provided a concise description of reflection: “Reflection is deliberate thinking about action with a view to its improvement” (p. 35). It allows educators to recognize multiple perspectives (Putnam & Grant, 1992), explain the motivations and logic in constructing and assessing decisions, identify the restrictions of personal biases (Harrington & Hathaway, 1994), examine their practice (Valli, 1997), and build theory (Donahue, 2005). In addition, critical reflection on experiences, readings, and coursework is essential during field experiences because research suggests that new teachers will limit their teaching practices to the ways they were taught if they do not seriously reconsider and reflect upon pedagogical issues (Grossman, 1990). Reflection, a fundamental skill preservice teachers must develop during their formal education (Hatton & Smith, 1994; Kagan, 1992; Kettle & Sellars, 1996), is promoted through thoughtfully devised teaching activities, directed practice, and modeling (Ciriello, Valli, & Taylor, 1992; King & Kitchener, 1994; D. Ross, 1990; Valli, 1997).

Preservice teachers engage in various forms of reflective activities, differences among which may result in different goals. The origins of these goals can be traced to the
works and philosophies of Rene Descartes, John Dewey, and Donald Schon. Descartes asserted that the purpose of reflection is self-awareness (Nadler, 1989). Dewey contended that reflective thinking is a form inquiry into one’s practice (Ciriello et al., 1992; Dewey, 1933; Fendler, 2003; Rich & Hannafin, 2008). Schon characterized reflection as practice-based and artistic (Akbari, 2007; Beck & Kosnik, 2001; Schon, 1983, 1987). Their thinking regarding reflection and how their views are interpreted and implemented into teacher education programs are discussed in the next section.

Reflection for Self-Awareness

According to the Cartesian definition of reflection, self-awareness and self-knowledge can lead to greater insights about one’s selfhood, actions, and thoughts (Nadler, 1989). This notion of self is relevant to this study because it can influence how teachers view themselves as professionals (Akbari, 2007) and how they make decisions. Self is also associated with teachers’ emotional domain (Stanley, 1999). Preservice teachers who develop the habit of self-awareness, that is, cognitively and emotionally reflecting on themselves, may enhance their teaching and learning. Stanley (1999) stated:

Emotions play an important role: They either prevent the implementation of a formal process of reflection or they actually stimulate the process. . . . Reflection is a complex cognitive and affective process, which takes time and practice to develop and integrate into one’s mind, heart, and life. (p. 111)

The Cartesian perception of reflection includes the reflective self as active. Although reflection as an essential element of educational theory means “to think,” it assumes a more important role. Van Manen’s (1991) definition of reflection in education
acknowledges this purposeful action. He states, “reflection in the field of education carries the connotation of deliberation, of making choices, of coming to decisions about alternative courses of action” (Van Manen, 1991, p. 98). Further, Evans and Pollicella (2000) state that reflection “requires teachers to be introspective, open-minded, and willing to be responsible for decisions and actions” (p. 62). Both these definitions illustrate the extended meaning of reflective self-awareness as a foundation for decision-making.

Taking their cue from this derived meaning, many teacher educators ask preservice teachers (a) to reflect on their prior experiences and knowledge in order to determine what influence, if any, they have on their current thinking, beliefs, and actions and (b) to draw upon these experiences and knowledge as another source of information when making decisions about their teaching (Putnam & Grant, 1992). Reflecting on prior experiences is often done in journal writing (Brookfield, 1995; Ciriell et al., 1992; Fendler, 2003; Ross, 1990; Surbeck, Han, & Meyer, 1991). This narrative approach is important because it helps make teaching experiences meaningful by combining personal experiences, goals, and knowledge (Brookfield; Connelly & Clandinin, 1990) and helps preservice teachers make connections with one another by sharing (Heath, 1994).

Brown (1999) assigned her English teacher education students in a methods course to write a literacy autobiography both to encourage reflective thinking and to incorporate a literacy teaching strategy. Students were required to write a narrative pertaining to their literacy experiences and consider how they influenced their current thinking. Brainstorming sessions included recalling favorite teachers and books, peer
feedback, and discussion. Findings suggest that “using the literacy autobiographies to promote further reflection and inquiry [effectively] models [various] ways to involve students in active engagement in meaning-making processes” (p. 407). Brown also contended that the literacy autobiographies helped the preservice teachers link theoretical and pedagogical issues, connect and collaborate with students, and reflect on prior educational experiences.

Using past experiences to develop consciousness about why and how they may impact current thinking and pedagogy is one purpose of reflection. This form of reflective thinking helps preservice teachers analyze and critically reflect on their prior experiences (Mueller & O’Connor, 2007), connect with others (Brown, 1999; Heath, 1994), discuss and comprehend the impact of these experiences on their current thinking, and connect theory and practice (Brown, 1999).

Reflective Inquiry

*Dewey.* Dewey’s work on reflection grew from opposition to proponents of competency-based teacher education (Valli, 1997), which trained teachers how to implement strategies and approaches yet left them unfamiliar with the reasons such strategies and approaches were suggested. This gap between theory and practice led Dewey to implement reflective thinking as a way for teachers to focus not only on themselves but also on the act of thinking through inquiry. In his approach preservice teachers should participate in finding the meaning of experiences through problem solving to “counteract their tendency to respond to events by simply imitating the actions of cooperating teachers or by indiscriminately applying knowledge without thorough
analysis” (Ciriello et al., 1992, p. 102). Thus, a focus of reflective teacher education should examine “how successful teachers think” (Valli, 1997, p. 70).

For Dewey, reflection is valuable because it transfers impulsive action into thoughtful action by “replac[ing] appetites and impulses with scientifically rational choices” (Fendler, 2003, p. 18). This use of logic is significant because it encourages teachers “to consider, to reflect, to inquire, to look into the matter” (Dewey, 1913/1966, p. 171). Thus, reflective teachers participate in contemplative inquiry and investigation related to their practice rather than simply rely upon instincts when making decisions.

Dewey (1933) proposed his examination of reflective thinking by identifying “the essential functions of reflective activity” (p. 106). For Dewey, reflective activity requires states of thinking that take place after a “perplexed, troubled, or confused situation at the beginning” and before “a cleared-up, unified, resolved situation at the close” (pp. 106–107). According to Dewey (1933), reflective thought takes place within the following boundaries and incorporates the following features or steps:

(1) suggestions, in which the mind leaps forward to a possible solution; (2) an intellectualization of the difficulty or perplexity that has been felt (directly experienced) into a problem to be solved, a question for which the answer must be sought; (3) the use of one suggestion after another as leading idea, or hypothesis, to initiate and guide observation and other operations in collection of factual material; (4) the mental elaboration of the idea or supposition as an idea or supposition (reasoning, in the sense in which reasoning is a part, not the
whole, of inference); and (5) testing the hypothesis by overt or imaginative action.

(p. 107)

Dewey (1933) held that inquiry begins with a question, encourages discovery, and makes us aware of our actions. Searching for the resolution of a query “is the steadying and guiding factor in the entire process” (Dewey, 1933, p. 11). Using inquiry to improve one’s teaching and learning requires preservice teachers to “return to the perplexity that initiated the inquiry by acting out a viable solution to it” (Rich & Hannafin, 2008, p. 1427). Therefore, reflective thinking becomes a form of inquiry when preservice teachers are encouraged actively to question, examine, investigate, and explain their practice in order to improve their understanding of classroom events, enhance their teaching, and become problem solvers (Dawson, 2006).

Dewey’s (1933) style of reflective thinking should not be viewed as a technical approach because he promotes flexibility within the steps:

The five phases, terminals, or functions of thought, that we have noted do not follow one another in a set order. On the contrary, each step in genuine thinking does something to perfect the formation of a suggestion and promote the location and definition of the problem. Each improvement in the idea leads to new observations that yield new facts or data and help the mind judge more accurately the relevancy of facts already at hand. (pp. 115–116)

This approach to reflection is rooted in observations, requires suspending judgment until investigation occurs (Dewey, 1933), and compels preservice teachers to describe observed evidence prior to making conclusions (Hubbard & Power, 2003). One
of the purposes of reflective inquiry is to assist preservice teachers in connecting the practice of teaching and the theories of learning (Poetter et al., 1997; E.W. Ross & Hannay, 1986). Preservice teachers must “utilize’ their university instruction and other sources of relevant knowledge to consider why particular schooling practices occur and their educational (and ethical) implications” (Gitlin & Teitelbaum, 1983, p. 230). Inquiry, therefore, may help preservice teachers’ to develop the ability to review and enhance their practice because it involves “weighing concrete evidence of practice with established norms, theories, and research” (Rich & Hannafin, 2008, p. 1427).

In a study of the way 27 preservice teachers used reflective inquiry during a field experience, Chitpin, Simon, and Galipeau (2008) found that preservice teachers must understand their practice “as investigation, experimentation, reflection, and analysis of what goes on in their classroom practice, and how they use their own personal professional theories to guide them in their future practice” (p. 2049). Required to identify a classroom issue they faced during their prior field placement, the preservice teachers were instructed how to investigate their issue through the use of the “objective knowledge growth framework” (Chitpin et al., p. 2050), which involves identifying a problem to solve, creating a theory as to how to solve the problem, testing the theory, and either creating a new theory or identifying a new problem. The issues students chose to study were related to time management, classroom management, and behaviors that extended beyond the classroom. Findings suggest that the “framework facilitated preservice teachers’ reflective processes in formulating and reformulating their classroom management problems as tentative theories or solutions” (Chitpin et al., p. 2056).
Reflective inquiry has the potential to help preservice teachers develop reflective and investigative skills needed to enhance their practice. They need guidance (Chitpin et al., 2008; Loughran, 1997) and opportunities to develop these skills in order to link theory and practice (Poetter et al., 1997; E. W. Ross & Hannay, 1986), explain their practice in order to understand classroom events better (Dawson, 2006), and solve educational problems based on observations, evidence, reflection, and action (Chitpin et al.; Cochran-Smith & Lytle, 1993; Dewey, 1933; Hubbard & Power, 2003; Rich & Hannafin, 2008).

Schon. Arguing that reflection is personal, intuitive, and nonrational (Akbari, 2007; Schon, 1983, 1987), Schon viewed reflection as an art in which practitioners engage to make sense of uncertain and unique teaching situations (Beck & Kosnik, 2001; Fendler, 2003). Dewey and Schon both stated that a problem serves as the impetus for reflection, followed by a search for a solution.

Schon (1987) asserted that teachers experience reflection-in-action and reflection-on-action. The process by which individuals reflect on what they have done is reflection-on-action, which occurs when mentors, supervisors, and cooperating teachers encourage preservice teachers to think back on their actions, asking themselves, “What am I doing and why?” Teachers engage in reflection-on-action after an event has occurred. Typically, most preservice and in-service teachers are encouraged to participate in this type of reflection. Reflection-in-action involves real-life situations that occur during teaching. When faced with such situations, teachers do not rely on theory or past experiences (Beck & Kosnik, 2001); instead, they draw upon their collection of examples.
and experiences to reframe the situation and find solutions. Reflection-in-action is an individual occurrence, but reflection-on-action may occur collaboratively. Despite this difference, both forms of Schon’s reflection start with a problem, which leads the individual to try to make sense of the problem and seek possible resolutions and plans of actions. Reflection occurs during this thinking when the person analyzes options, considers prior experiences, and outcomes.

Loughran (2002) argued that reflection “places an emphasis on learning through questioning and investigation to lead to a development of understanding” (p. 34). This corresponds to Dewey’s and Schon’s notion that reflection and inquiry should begin with a dilemma faced by the teacher, follow with an examination of the problem, and conclude with a strategy to address the situation. Reflection on and inquiry into practice gives preservice teachers the opportunity to implement others’ theories and create their own (Donahue, 2005). Placing preservice teachers in the role of inquirers obliges them to reflect upon the situation at hand and seek possible resolutions.

Summary

Many teacher educators have drawn heavily upon the theories of Descartes, Dewey, and Schon to provide a rationale for the inclusion of reflective practices in teacher education programs. Critics of their views caution against a narrowed focus of reflection, stating that reflection is overly used and often requires preservice teachers simply to regurgitate prior events (Conway, 2001; Fendler, 2003; Liston & Zeichner, 1990). Reflective practices have a place in teacher education programs; how and why they are implemented are key elements for consideration. My study explored one possible
way to accommodate all three theories of reflection by having preservice teachers participate in videotape analysis of their own teaching.

Videotape analysis may enable the implementation of all three theories regarding reflection: Descartes’ meaning, Dewey’s interpretation, and Schon’s approach. Videotape analysis, which entails having preservice teachers videotaped during the teaching of lessons prepared by them and later viewed by them along with a small group of fellow classmates, has the potential to provide preservice teachers with a space to increase their awareness of their own teaching practice and prior experiences (Descartes), engage in an inquiry-oriented approach to their practice (Dewey), and participate in reflection-on-action when viewing videotapes of previously taught lessons (Schon).

Video in Teacher Education

The ubiquity of video in society serves several purposes and creates opportunities for innovative possibilities and beneficial applications. Video is used to entertain, communicate, and educate. Video recordings can be used to illuminate that which is overlooked, analyze and reanalyze in order to enlighten, and highlight specific features to aid in development and understanding. The fields of counseling, medicine, business, law enforcement, and sports benefit from using video in diverse ways for different reasons (Ely & Plomp, 1986; Jones, 1999; Steinert, 1993). The use of video in the teaching profession also serves many purposes: (a) to control behavior and train teachers (Allen & Eve, 1968; Fortune, Cooper, & Allen, 1967; Lange, 1971; Meier 1968; Sherin, 2004); (b) to study teacher thinking (Berg & Smith, 1996; Berliner, 1986; Rosaen, Lundenber, Cooper, Fritzen, & Terpstra, 2008; Sherin, 2000; Sherin & Han, 2004; Sherin & van Es,
2005; van Es & Sherin, 2008; Wang & Hartley, 2003); (c) to help teachers reflect on their practice (Harford & MacRuire, 2008; Harris, Pinnegar, & Teemant, 2005; Sherin, 2004; Sykes & Bird, 1992; Welsch & Devlin, 2006); (d) to analyze and discuss teaching (Rich & Hannafin, 2008; Rowley & Hart, 1993; Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008); and (e) to provide examples of exemplary and poor teaching practice (Broudy, 1990; Copeland & Decker, 1996; Fong & Woodruff, 2003). Researchers have explored the role of video with in-service and preservice teachers. In this section I have examined how video has been used in teacher education. The studies under consideration are significant to this research because they provide information about the various applications and intentions of video in teacher education.

Videotaped Microteaching

Video equipment was introduced in the early 1960s (Olivero, 1965) at a time when teacher educators and researchers implemented the “teaching encounter” (Allen & Eve, 1968, p. 181), also called microteaching, as a training tool for in-service teachers and as a research instrument (Fortune et al., 1967). Microteaching derived from the belief that teaching consists of certain skills that can be learned and teachers’ behaviors can be modified to imitate these skills (Allen & Eve; Fortune et al., 1967; Meier 1968; Sherin, 2004). Microteaching sessions introduced teachers to a particular teaching skill, such as using visuals or lecturing skills. A teacher was then videotaped teaching a 10–15 minute lesson usually to four or five students (Allen & Eve, 1968; Fortune et al., 1967). The teacher viewed the video with a supervisor directly after teaching to examine his or her ability to perform the particular skill and then adjusted and retaught the lesson (Fortune et
al., 1967; Francis, 1997; Meier; Sherin, 2004). Microteaching quickly became a regular practice in teacher education programs during the 1960s and 1970s because of “the growing availability of video equipment” (Sherin, 2004, p. 3).

In an empirical study of a summer programs for teachers, Fortune et al. (1967) defined microteaching as a “scaled-down teaching encounter” (p. 389) that functions as a “preliminary experience and practice in teaching, as a research vehicle to explore training effects under controlled conditions, and as an in-service training instrument for experienced teachers” (p. 389). Fortune et al. asked 140 in-service teachers to participate in a learning cycle in which they received instruction on various teaching behaviors and were videotaped while teaching a small group of students. The in-service teachers then viewed the videotaped lesson with supervisors to determine the extent to which in-service teachers’ behaviors aligned with particular teaching behaviors, received feedback from supervisors, and retaught the lesson. Instruction in the first week centered on lecturing techniques; instruction during subsequent weeks focused on discussion sessions, homework and reading assignments, controlling techniques and procedures, and presentation skills. In-service teachers planned and taught a 12-day unit during the remaining weeks; all teaching behaviors were evaluated during the final weeks. Results supported the use of microteaching because in-service teachers displayed changes in their teaching behaviors. Furthermore, in-service teachers reported value in the usefulness of supervision and feedback during microteaching sessions. In this study, video used in this capacity served as a recording mechanism (a) for supervisors to view and evaluate in-service teachers and (b) for in-service teachers to evaluate themselves. In both instances,
supervisors and in-service teachers based evaluations on a preestablished set of criteria to
determine whether or not teaching behaviors were exhibited, to what extent those
behaviors were shown, and whether or not those behaviors changed over time.

Researchers and teacher educators continued to use this traditional form of
microteaching throughout the 1970s and 1980s (Allen & Eve, 1968; Copeland, 1977;
Fortune et al., 1967; Fuller & Manning, 1973; Legge & Asper, 1972; McKeachie, &
Kulik, 1975; Meier, 1968; Tobin, 1987; Wong, 1985). Research on microteaching during
the 1990s illustrated a gradual shift away from teacher training toward teacher thinking.
Francis (1997) and Pauline (1993) used a modified version of microteaching with
preservice teachers. The conventional method of microteaching emphasized altering
behaviors and transmitting knowledge; by contrast the modified version encouraged
inquiry, collaboration, reflection, and constructing knowledge (Francis, 1997). The
modified version of microteaching continued to be a “scaled-down teaching encounter”
(Fortune et al., 1967 p. 389) anchored on the idea that preservice teachers participate in
cycles of learning, goal-setting, planning, teaching, observing, and reflecting (Francis,
1997). Providing preservice teachers the opportunity to construct knowledge and develop
their practice through collaboration with peers replaced training preservice teachers to
use specific skills (Francis, 1997; Pauline, 1993).

The modified version of microteaching is still a method of instruction useful in
the 21st century (Fernandez & Robinson, 2006; Subramaniam, 2006). Research on using
microteaching to train teachers prevailed during the 1960s, 1970s, and 1980s (Allen &
Eve, 1968; Copeland, 1977; Fortune et al., 1967; Fuller & Manning, 1973; Legge &
Asper, 1972; McKeachie, & Kulik, 1975; Meier, 1968; Tobin, 1987; Wong, 1985).

During the 1990s, researchers and teacher educators modified the use of microteaching as a training tool to the use of microteaching as an on-campus teaching experience for preservice teachers to connect theory and practice, receive feedback on their practice, and reflect on their teaching and learning (Fernandez & Robinson, 2006; Francis, 1997; I’Anson, Rodrigues, & Wilson, 2003; Pauline, 1993; Subramaniam, 2006).

Unfortunately, because of time constraints and cost (Kpanja, 2001; Subramaniam, 2006; Wilkinson, 1996) the less widely used videotaped microteaching was replaced with written reflections and oral and written feedback from supervisors and peers (Subramaniam, 2006).

The current view of videotaped microteaching offers useful insights. Research on the benefits of videotaped microteaching has shown that providing preservice and in-service teachers the opportunity to be videotaped while teaching brief lessons with small groups of students brings about the chance to receive feedback, engage in self-evaluation, and enhance teaching (Benton-Kupper, 2001; Brent & Thomson, 1996; Francis, 1997; Pauline, 1993). In addition, microteaching has the potential to encourage preservice teachers to engage in reflective practices (Amobi, 2005; Benton-Kupper, 2001; Francis, 1997; Jerich, 1989; Wilkinson, 1996). The innovative use of video in microteaching created a foundation for subsequent researchers to alter, modify, and transform the purpose of video in teacher education.
During the late 1980s and early 1990s, researchers and teacher educators moved away from behaviorist approaches to teaching, focusing on teacher thinking instead of teacher behavior (Berliner, 1986; Sherin, 2004; Tochon, 1999). This movement away from behaviorism brought about the notion that preservice and future teachers could learn by analyzing the teaching of expert teachers (Rowley & Hart, 1993). Video cases, that is, taped lessons taught by in-service teachers in natural settings and viewed later by preservice and in-service teachers (Chaney-Cullen & Duffy, 1999; Tippins, Nichols, & Dana, 1999), were produced and used in teacher education programs to help preservice teachers become accustomed to reflecting on their practice and provide them with teaching models.

The use of video cases can be helpful in that they vary in terms of content (subject-specific cases) and background (context-specific cases) and present theoretical perspectives and problematic circumstances (Sykes & Bird, 1992). Teacher educators use video cases because they serve as a visual representation of teachers’ professional knowledge (Boling, 2007; Carter & Doyle, 1996; Clandinin & Connelly, 1995; Harris et al., 2005) and provide preservice teachers with visual representations of exemplary teaching practices that can motivate them to question their own beliefs and misconceptions about teaching (Harris et al., 2005). In addition, watching and discussing video cases allows preservice teachers to view and reflect upon teaching practices of experienced teachers that reflect their knowledge of student learning and subject matter
(Shulman, 1986). The use of video cases provides varied learning experiences for preservice teachers.

Video cases serve different purposes based on their varying interpretations in teacher education (Copeland & Decker, 1996; Merseth & Lacey, 1993; Sykes & Bird, 1992). Implementing video cases into teacher education courses may (a) act as a tool to encourage analysis and promote the development of preservice teachers’ construction of educational knowledge (Boling, 2007; Broudy, 1990; Copeland & Decker, 1996; Doyle, 1990), (b) help preservice teachers analyze and interpret student thinking (Bulgar, 2007), and (c) serve as a foundation for professional development and reflection (Fong & Woodruff, 2003; Sherin, 2004).

What preservice teachers notice and how they interpret and comprehend what they observe are significant. Copeland and Decker (1996) set out to understand the meaning-making process of preservice teachers who view video cases. Twelve female participants in an elementary education program viewed, analyzed, and discussed a video case in groups of three. Viewing and reviewing the video case several times, the participants wrote about the case and discussed the case in their groups. Participants were interviewed before and after the video case sessions. No supervision or facilitation took place during the viewing, writing, or discussion of the case. Copeland and Decker found that the teacher education students created meaning through analysis and critique of the teaching and learning process exhibited in the vignette; however, they did not delve into deep critical thinking during discussions. For example, one group
simply noted that the teacher appeared to be looking for a specific answer. They did not, however, enter into any discussion of the larger importance of such a teacher action by considering such issues as the need for rigor and accountability or its potential influence on pupil creativity. (p. 478)

This lack of depth suggests that supervision, facilitation, and scaffolding by teacher educators must occur simultaneously with the viewing, discussing, and analyzing of video cases. Without scaffolding, this strategy is more likely to produce a shallow learning experience instead of an in-depth learning opportunity.

Bulgar (2007) also investigated the meaning-making processes of preservice teachers when viewing video cases, specifically studying how 34 preservice teachers made sense of mathematical activity while watching video cases. Preservice teachers enrolled in an elementary mathematics methods course viewed video cases of mathematics lessons in a second-grade classroom, which included teacher narratives and commentary to direct participants’ attention to particular aspects and explain what was taking place. Working in groups of three or four to view, reflect, and discuss the video cases, participants also answered four questions to demonstrate their ability to identify and interpret student learning. Bulgar’s findings indicated that the preservice teachers demonstrated the ability to identify and interpret student learning in the video cases. This is significant because preservice teachers need to identify and understand how students learn in order to implement effective and meaningful activities to support the learning process. In contrast to the work of Copeland and Decker (1996), in which no supervision occurred, this research included modeling and scaffolding of the videotape analysis
process prior to the participants’ engagement with the strategy in small groups. This single variable may have greatly enhanced the experience for the preservice teachers and is a noteworthy feature that may well serve future researchers.

The work of Fong and Woodruff (2003) was designed to determine whether preservice and in-service teachers were able to identify exemplary teaching practices while viewing a video case; the theoretical lens of frame theory guided their research with the idea that “teachers’ professional frames drive them to view vignettes through multiple lenses, and that teachers may not recognize the exemplary practice when presented with it” (p. 209). Half the participants were “instructed to look for characteristics of exemplary practice,” (Fong & Woodruff, p. 198) described as an activity or explanation used to assist learners reach a substantial understanding of the content. The other half were given no instruction and told simply to discuss what they observed on the video. Results from this study indicated that all participants viewed the video cases to some extent through lenses of subject, form, pedagogy, and surface-level media, using a subject lens to view a video in terms of the content taught instead of how to teach the material. A form lens was used to observe how activities were managed yet lacked analysis regarding the meaning and purpose of these events. The pedagogy lens illustrated the participants’ attempts to connect theory and practice by focusing on the reasons underlying the classroom events. Participants used a surface-level media lens to direct their attention to the appearance of the instructor or the focus of the camera angle. Additional results suggested that those who received instruction were slightly better able to identify exemplary teaching practices. Based on their findings, Fong and Woodruff’
recommended that before teachers view video cases they should be instructed to look for examples of quality practice, such as addressing student misconceptions and helping students develop a meaningful understanding of the material, because when participants were presented with situations they had not previously encountered, they were unable to identify instances of exemplary practice. Developing the ability to recognize exemplary practice may help preservice teachers develop observation skills in order to notice, discuss, interpret, and understand classroom interactions and teacher practices.

Differing opinions regarding the varying uses of video cases have elicited much research and several significant findings (Broudy, 1990; Bulgar, 2007; Copeland & Decker, 1996; Doyle, 1990; Fong & Woodruff, 2003; Lange, 1971). Results from research on video cases indicate that using them (a) promoted analysis and encouraged teacher thinking (Boling, 2007; Broudy, 1990; Copeland & Decker, 1996; Doyle, 1990), (b) assisted in the interpretation of student thinking (Bulgar, 2007), (c) highlighted the need for providing supervision and guidance prior to and during viewing of video cases (Bulgar, 2007; Copeland & Decker, 1996; Fong & Woodruff, 2003), and (d) served as a foundation for professional development and reflection (Fong & Woodruff, 2003; Sherin, 2004). Awareness and appreciation of the potential benefits of this form of pedagogy may encourage more teacher educators to implement video cases as a part of their curriculum.

Video cases have the capacity to serve as valuable teaching and learning tools that provide preservice and in-service teachers the opportunity to collaborate, view, analyze, and discuss a variety of teaching and learning components. According to the research of Fong and Woodruff (2003) and Bulgar (2007), participants who were
provided with guidance and supervision along with background and contextual information were able to recognize exemplary teaching practices and identify and interpret student thinking when viewing and analyzing video cases. Providing preservice teachers with this type of teaching and learning experience may help them develop a conceptual and realistic framework for their future teaching and learning endeavors.

*Video Clubs, Preservice Teachers Viewing their Practice, and Software Applications*

Preservice teachers who observe their mentor teachers at field schools and often observe their peers have also witnessed teaching in their experiences as students prior to observing classrooms as prospective teachers. This phenomenon is referred to as the “apprenticeship of observation,” in which preservice teachers draw upon their prior encounters in education to think about and form beliefs about teaching (Knowles & Reynolds, 1991; Lortie, 1975). Preservice teachers’ attitudes regarding teaching typically hold firm, rarely altered by coursework and experiences in teacher education (Kennedy, 1991); therefore, confronting these teaching perceptions and helping preservice teachers to develop new perspectives and knowledge of teaching and learning should be a focal point of the education of future teachers (Cochran-Smith, 1991).

One possible way to confront the existing beliefs and attitudes of preservice teachers is through the observation, analysis, inquiry, and investigation of one’s own teaching (Berg & Smith, 1996; Harford & MacRuairc 2008; Rich & Hannafin, 2008; Sherin & van Es, 2005; Welsch & Devlin, 2006). The use of these four skills with regard to their own teaching has the potential to enable teachers to increase awareness of what they are doing, how they carry out a task, and why they act and react in various
situations. This series of complex decisions and negotiations takes place simultaneously in the teaching and learning process. The ability to analyze and dissect this sequence of events is also a complex process (Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008). Traditionally, mentor teachers, university supervisors, and professors observe preservice teachers. Implementing another type of observation, that is, examining their own practice on video, may afford preservice teachers an even more valuable and influential kind of observation.

Researchers have contended that self-observation and analysis of one’s own teaching practice have benefits and potential for future use (Berg & Smith, 1996; Harford & MacRuairc 2008; Rich & Hannafin, 2008; Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008; Wang & Hartley, 2003). They have also studied the practice of in-service teachers who examine their own teaching in the form provided by the video club (Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008), student teachers who come together to view their own practice and the teaching of peers (Harford & MacRuairc, 2008; Welsch & Devlin, 2006), and student teachers who investigate their own teaching using software applications (Rich & Hannafin, 2008; Sherin & van Es, 2005).

Video Clubs. Video clubs consists of small groups of teachers who videotape themselves teaching lessons and meet as a group to discuss and analyze one another’s teaching (Sherin, 2000). A growing number of educators have formed video clubs as a means of professional development (Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008). According to Sherin (2000), “Video clubs are
opportunities for teachers to review their classroom interactions in ways that are different from their standard daily practices” (p. 36). When teachers view their practice on video, they do not have to respond immediately to the situation; watching a video provides teachers with the time to observe closely, think about, discuss, reflect on, and learn from their own practice (Sherin, 2000). Adapting and incorporating this practice into teacher education programs may supply preservice teachers with the same kind of feedback, support, and collaboration that has been found to take place with in-service teachers.

Sherin and Han (2004) examined the learning of four middle school mathematics teachers during a year-long series of video club meetings. Each teacher met with the researchers to review and choose an excerpt of the videotaped lesson to view during the meeting of the video club. The teacher on the video introduced the clip to provide context. One researcher acted as a facilitator during the meetings and opened the discussion by asking, “What did you notice” or “Any comments?” (Sherin & Han, 2004, p. 167). Reporting several significant findings pertaining to professional development and teacher thinking, the researchers first asserted that video clubs align with key characteristics of professional development, concluding that they promoted collaboration by teachers in a community of learners where meaningful learning took place. In addition, Sherin and Han found that video clubs encouraged what “Lord (1994) call[ed] critical colleagueship, an atmosphere in which members trust [one another]” (p. 164). The video club meetings provided a time for educators to develop, critique, and collaborate in safe surroundings. Second, the researchers argued that participating in the video club gave the teachers the chance to “develop an attitude of inquiry toward their
because they viewed, reflected on, questioned, and analyzed videotaped lesson of their own practice. Third, participating in the video club gave teachers access to other teachers’ classrooms whereby they were able to observe and learn from the practice of others. Teachers often feel detached and isolated from their colleagues because of the structure of schools (Harford & MacRuaire, 2008). When teachers meet, they often convene to address broader curriculum and administrative issues while neglecting the daily practices of teaching and learning. Viewing and discussing videos of colleagues provided teachers with “access to other classrooms and the opportunity to hear and discuss a variety of perspectives” (Sherin, 2000, p. 37). Fourth, watching videotapes of classroom practice enabled educators to hone in on a specific student, group of students, instructional segment, or classroom activity. One teacher commented, “As a teacher, you have to focus on everything . . . but here we were able to free ourselves from all the other little things that happen in the classroom and just focus on the discourse. It’s a rare luxury” (Sherin, 2000, p. 37). Fifth, participation in the video club prompted teachers to discuss a wide variety of topics. The researchers’ analysis of the data showed five predominant themes of discussion during video club meetings: “(a) pedagogy, (b) student conceptions, (c) classroom discourse, (d) mathematics, and (e) other” (Sherin & Han, 2004, p. 167). These themes demonstrate that the teachers discussed an extensive assortment of educational issues that they encounter on a daily basis. Overall, this video club setting provided the researchers with a platform to investigate what teachers discuss and how they discuss educational issues pertaining to their daily teaching and learning encounters. In addition, video clubs enhanced teachers’
ability to reflect on their practice. Viewing videotapes provided teachers with the same
wait time they offer their students to think and develop a thoughtful response to what
they witnessed based on their ability to reflect on the incident. The last finding pertains to
the notion of investigating instead of evaluating teaching (Sherin, 2000; Sherin & Han,
2004). The researchers advised against hypothetical suppositions of what the teacher
might have done differently in favor of focusing on what actually occurred. Sherin and
Han encouraged this innovative outlook when viewing videos because “teachers reported
that they not only became more aware of students’ ideas while watching the video, but
also paid more attention to their students’ thinking during instruction” (p. 38). Sherin and
Han’s (2004) research has added to the body of knowledge of the way viewing video
encourages teacher thinking. Preservice teachers who are able to view videotaped lessons
of their own teaching may also benefit from the experience.

In 2008, van Es and Sherin studied the thinking of seven fourth- and fifth-grade
elementary teachers during video club meetings. The teachers met 10 times throughout
the school year, viewing two video clips during each meeting; each teacher had the
chance to share clips two or three times during the study. A researcher videotaped two
teachers’ mathematics lessons before each meeting. The same researcher then viewed the
tapes and selected brief clips focusing on mathematical issues that arose during the
lessons. Each meeting opened with the researcher acting as facilitator, placing the clip
into context, and disclosing the mathematical issue of the lesson; the teacher whose clip
was on view was also provided relevant information. The goal of the facilitator during the
meetings was to help teachers to “learn to notice and interpret students’ mathematical
thinking” (van Es & Sherin, 2008, p. 248), asking, “What did you notice” or “If we had to
guess if James knows his times tables, what would you say?” (van Es & Sherin, p. 248). To
guide teachers in locating evidence to support their thinking, the researcher asked,
“What did you see in the video that makes you think that” (van Es & Sherin, 2008, p. 248). To assist teachers in interpreting what they noticed, the facilitator asked, “What do
you think that says about James’s understanding” (van Es & Sherin, 2008, p. 248). The
researchers found teachers’ discussion of classroom events changed over time from the
initial video club meetings to the end. Teacher comments shifted from descriptive to
interpretive and from general to more specific. For example, one teacher initially
commented on classroom events only on a literal level; by the final video club meetings
this teacher was able to describe and ask questions about student thinking that took place
during the video clip. In addition, teachers increased the amount of commentary they
made regarding the students and mathematical thinking over the course of the video club
meetings. These findings support the use of video clubs with in-service teachers when a
framework is utilized to assist them in learning to notice significant classroom events.

Berg and Smith (1996) also advocated the use of video clubs because videos can
be viewed multiple times by different people, create a forum for feedback and discussion,
and encourage teachers to think critically and deeply about their teaching. The
researchers also contended that using video comes with limitations that merit
consideration. To begin, Berg and Smith argued that the presence of a camera in the
classroom may impact students’ behavior in positive or negative ways. In addition, a
video camera provides a limited scope; a full view of the classroom and events may be
impossible to capture. Finally, videos cannot reveal the planning that took place to create the lesson, so Berg and Smith suggested including a videotaped teacher narrative to inform the viewers about how the lesson was generated to remedy this concern. These three elements can influence the overall experience and must be reconciled when viewing and analyzing a videotaped lesson.

Research on video clubs has generated several significant findings about the effects of teachers’ viewing and discussing their own and others’ videotaped lessons (Sherin, 2000; Sherin & Han, 2004; van Es & Sherin, 2008). Teachers who participated in video clubs noticed and analyzed student thinking, investigated their teaching, and collaborated with colleagues (Sherin & Han, 2004; van Es & Sherin, 2008). Preservice teachers may also develop their powers of observation and analytical skills, form professional relationships with peers, enhance their ability to interpret student thinking, and develop an inquiry-oriented attitude toward their own teaching when provided with the opportunity to view and discuss with peers their own teaching during field experiences.

Preservice Teachers Viewing Their Practice. Research pertaining to preservice teachers’ use of videotaped recordings of their teaching for the purpose of studying their own practice and that of their peers is slowly emerging (Harford & MacRuairc, 2008), only gradually perhaps because of restrictions pertaining to time and cost as well as difficulty in obtaining school and parental consent to videotape at field schools (Rosaen et al., 2008). Available research on preservice teachers and video focused on how viewing their videotaped lesson helps to develop reflective thinking. Welsch and Devlin
(2006) and Harford and MacRuairc (2008) studied how viewing one’s teaching impacts preservice teachers’ reflective thinking. Their research endeavors focused on reflection; however, the research studies varied in terms of design and methods.

Welsch and Devlin (2006) examined how viewing one’s teaching on video (video-based) versus not viewing one’s teaching on video (memory-based) impacted the reflections of 26 undergraduate students and 8 graduate students. One group of students was designated as the memory-based reflection (MBR) section and the other was assigned as the video-based reflection (VBR) section. The MBR students planned and taught a lesson, and each completed a written reflection of his or her performance after teaching the lesson. The reflection required students to respond to six questions. Such questions included the following: “To what extent did the students learn what you intended? How do you know?” and “Identify an individual or group of students who did well in today’s lesson. How do you account for this individual or group’s performance?” (Welsch & Devlin, 2006, p. 56). Their written responses were based on memory. Those in the VBR group also planned and taught a videotaped lesson. Each preservice teacher viewed the video following her or his lesson. After viewing, they wrote a written reflection in response to the same six questions those in the MBR section were given. Results from this research indicated that students in the VBR group presented a greater level of reflection than those in the MBR group. Students in the VBR group displayed more accuracy in describing evidence pertaining to overall student learning versus the recollections of those from the MBR group. Researchers also noted “that the use of videotape enhanced student reflection in areas of technical skills and overall perception”
(Welsch & Devlin, 2006, p. 58). These findings are relevant because they add to our existing knowledge of work with videotape analysis and in-service teachers. Welsch and Devlin (2006) expanded the scope of previous research findings related to video and in-service teachers to include research with video and preservice teachers. This study differs from previous research with in-service teachers and video in that the participants were novices and did not meet in a group to discuss their teaching; however, it supports preservice teachers’ viewing their own teaching to enhance reflective thinking.

Harford and MacRuairc (2008) studied the use of peer video as a tool to encourage reflection in student teachers. Twenty student teachers videotaped their lessons and met in two groups of 10 to analyze video clips during tutorial sessions. The student teachers preselected a 10-minute clip and provided the group with a lesson plan, an introduction to the video clip, and a reason for selecting the particular clip prior to watching the video. The researchers helped the participants develop their reflective abilities through a series of written prompts that progressively increased in complexity from fundamental concepts pertaining to methodology and classroom management to more complicated issues, such as the influence of individual backgrounds on teaching. Researchers reported that participants initially highlighted positive features and techniques of their peers; “gradually, with the aid of further, deeper prompts, students moved towards more meaningful reflections and deconstructed the practice of their peers in a more critical and analytical way” (Harford & MacRuairc, 2008, p. 1887).

Participants viewed this experience as valuable because they were exposed to a variety of diverse teaching methods and activities. One participant responded, “You see
the ideas not just hear them, even from different subjects” (Harford & MacRuairc, 2008, p. 1888). An additional finding pertained to the overall experience of working with others in the peer-video analysis setting. Students provided positive feedback about the experience; one student stated, “Teachers don’t want people in their class watching them teach . . . but they never had a chance to do something like this . . . . Maybe if they had had the chance they would see its value” (Harford & MacRuairc, 2008, p. 1888). Harford and MacRuairc’s research is similar to previous studies related to video clubs and in-service teachers in that the preservice teachers met in a group to discuss their teaching; however, it differs in that the main focus of their research was on how viewing one’s teaching encouraged the reflective thinking of preservice teachers. Furthermore, these large groups of 10 students differ from the intimate group of 4 or 5 participants in a video club context. Having more members in the group may limit each person’s opportunity to participate.

Having preservice teachers view their own teaching in the early stages of their education may help them develop a positive attitude towards colleagueship, a better understanding of the need for and value of professional development, and an awareness of the correlation between reflection and their practice. Harford and MacRuairc’s (2008) findings demonstrate that these outcomes are possible. Incorporating these types of experiences into more teacher education programs may provide future teachers with the opportunity to develop their reflection and collaboration skills in a unique, meaningful way.
Software Applications. Sherin and van Es (2005) examined how six preservice teachers’ use of a software application called Video Analysis Support Tool (VAST) impacted their ability to “learn to notice what is happening in their classroom” (p. 475). This is supported by Rosaen et al.’s (2008) claim that learning to notice classroom events is vital in order for growth and development to occur. The purpose of the VAST software is to enable preservice teachers to view and analyze their own teaching by downloading digitalized videos from their classroom to the VAST program. A unique feature of the VAST software is that it includes a sequence of scaffolds to help preservice teachers analyze their video. The participants focused on three specific facets of their video during videotape analysis: “(a) student thinking, (b) the teacher’s role, and (c) classroom discourse” (Sherin & van Es, p. 480). The VAST software program displayed scaffolding questions to help preservice teachers analyze their teaching. Questions prompted students to describe what they noticed about their teaching, record evidence to support the observation, provide interpretations of what occurred, and list questions arose as a result after they viewed a portion of their lesson (Sherin & van Es, p. 480). These questions were meant to guide teachers through the process of noticing and making sense of classroom exchanges, provide evidence of their thoughts, and consider various explanations for what occurred. Results of this research study affirm that preservice teachers “developed new ways of noticing and interpreting classroom interactions” (Sherin & van Es, p. 481). Also noteworthy was the development of preservice teachers in what they noticed and how they discussed their noticings. The preservice teachers using the VAST software “became better able to identify significant features of the video
segments rather than focus chronologically on the full range of events that took place” (Sherin & van Es, 2005, p. 482). Preservice teachers went from listing every single event that took place in the classroom to selecting and elaborating upon a few significant events. This shift signifies the preservice teachers’ improved their ability to notice meaningful incidents that contribute to the teaching and learning process.

Sherin and van Es’s (2005) basis for investigation focused on “the claim that the ability to notice classroom interactions is a key feature of teaching expertise” (p. 477). The researchers asserted that educators are constantly in a state of observing and assessing a variety of situations in their classrooms; determining which situations are of significance is an essential proficiency in the teaching and learning process. Sherin and van Es claimed that video plays a crucial role in helping teachers develop the ability to notice significant classroom interactions because it “provides teachers with a kind of access to classroom interactions that is not possible during the act of teaching itself. Specifically, video offers a permanent record of classroom interactions” (Sherin & van Es, p. 478). These permanent records are evidence of a teacher’s practice. The VAST software displays the evidence and scaffolds the process of noticing and discussing significant classroom events. Preservice teachers who used the VAST software developed observation and analysis skills, but doing so did not provide them the chance to develop relationships with their peers through discussions about their teaching. Preservice teachers used the software, but collaboration with peers was not reported.

Rich and Hannafin (2008) investigated how preservice teachers used evidence-based decision support while they planned, implemented, and modified their practice.
Four student teachers examined and modified their instruction while using evidence-based decision support by means of a video analysis tool (VAT). Evidence-based decision support “is a scaffolded inquiry approach . . . [that] involves planning, analyzing, reflecting, and adapting instructional approaches by comparing evidence of one’s practice with accepted norms, conventions, and standards” (Rich & Hannafin, p. 1428).

The participants produced a professional development plan to serve as the basis for their inquiry about a specific aspect of their teaching. In their plan they recorded the particular features of their teaching they would analyze, the types of evidence they would gather, and the basis for their decisions prior to teaching. Participants were required to select one of three attributes developed by the state to help frame their inquiries around significant teaching concepts. These attributes included “assessing individual students’ strengths and needs, accommodating individual students’ needs, and classroom management and learning environments” (Rich & Hannafin, 2008, p. 1432).

The participants gathered and studied the video evidence of their teaching via the VAT, which required them to upload and divide evidence of their teaching, analyze segments, comment on the segments, and interpret particular video clips through their chosen lens. Each participant was asked to videotape her or his thoughts before and after each videotaped lesson. Participants also wrote a reflection paper to describe their experience and its influence on their instructional decisions. Rich and Hannafin (2008) reported significant findings pertaining to “evidence-based, video-augmented teacher inquiry” (p. 1437). All participants stated that the video analysis was important in
analyzing their practice; however, their mentor teachers and their professors were more helpful in improving and guiding their inquiries. The scaffolding and modeling provided by the mentor teachers and the teacher educators played a critical role in helping the participants understand their videotaped teaching practice. Rich and Hannafin stated that although teacher educators and mentor teachers are significant, student teachers must learn how to investigate their teaching based on their own observations and evidence of their practice. The researchers also stated, “Inquiry-based methods may improve preservice teachers’ teaching knowledge and skills, but further study is needed to develop and validate structured, formal approaches to refining inquiry methods that influence their practice” (Rich & Hannafin, 2008, p. 1438). These findings are important because they highlight the value of scaffolding in the learning process. Preservice teachers need assistance in learning how to observe and investigate their own teaching; software applications and video alone are not enough.

Summary

The use of video with in-service and preservice teachers provides opportunities for researchers and teacher educators to use an innovative approach for inquiry, investigation, supervision, reflection, collaboration, and critical thinking (Berg & Smith, 1996; Broudy, 1990; Harford & MacRaurice 2008; Rich & Hannafin, 2008; Rosaen, et al., 2008; Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008; Wang & Hartley, 2003). Microteaching, video cases, video clubs, peer videos, and software applications can provide preservice and in-service teachers with an approach to develop their teaching and learning skills. How and why video is used are significant
points to consider. Video initially served as a tool to train teachers by watching videotaped lessons to determine the extent to which they mimicked certain behaviors (Allen & Eve, 1968; Fortune et al., 1967; Legge & Asper, 1972; Meier 1968; Sherin, 2004). Video cases, video clubs, peer videos, and software applications emerged when educational philosophy shifted from viewing teachers as people to train (Allen & Eve, 1968; Fortune et al., 1967; Meier, 1968; Sherin, 2004) to viewing teachers as valuable partners and assets in research where teacher thinking is valued (Berliner, 1986; Boling, 2007; Broudy, 1990; Copeland & Decker, 1996; Doyle, 1990; Sherin, 2004).

The purpose of microteaching, video cases, video clubs, peer videos, and software applications is to provide future and practicing teachers with a form of professional development that will inform their teaching, foster collaboration, and promote lifelong learning (Benton-Kupper, 2001; Brent & Thomson, 1996; Legge & Asper, 1972; Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008). Preservice and in-service teachers who participate in videotape analysis may improve their ability to notice, explain, and develop teaching and learning practices by joining colleagues in critical conversations about their profession and their everyday practice (Harford & MacRuairc, 2008; Sherin, 2000; Sherin & Han, 2004; van Es & Sherin, 2008).

Developing and nurturing professional relationships with peers helps to build a community of learners; pull down walls of isolation; and open pathways to analysis, reflection, discussion, and learning (Bulgar, 2007; Harford & MacRuairc, 2008; Sherin, 2000; Sherin & Han, 2004; van Es & Sherin, 2008; Welsch & Devlin, 2006).
Researchers and educators have learned to value the usefulness of video and continue to create and test various uses in hopes of helping future and practicing educators think critically and deeply about their practice. My study examined preservice teachers who viewed their own videotaped lessons in order to develop the necessary skills to learn how to notice and identify significant classroom events, investigate their own practice, and reflect on their teaching in order to enhance their practice. The initial development of these skills may occur during teaching experiences in college, but they require enhancement throughout the teaching career. Preservice teachers who participate in videotape analysis during their initial years of education may develop an awareness for and appreciation of the need for continual investigation of their teaching in order to improve their practice.
CHAPTER III
RESEARCH METHODS AND PROCEDURES

Introduction

The purpose of this study was to investigate how the seven processes (being videotaped, watching one’s teaching, selecting clips, providing rationales, asking questions, meeting in the form of a video club, and responding to exit slips) pertaining to videotape analysis assist, if at all, in preservice teachers’ ability to develop an inquiry-oriented approach to their teaching and learning and their reflective thinking pertaining to their teaching and learning during a field experience. I intended to determine how the seven predetermined processes helped them develop an inquiry-oriented approach to their teaching and learning as well as their reflective thinking. This research has the potential to increase understanding of the effective use of videotape analysis as a process to aid in the development of an inquiry-oriented approach to teaching and learning with preservice teachers. A qualitative case study approach was used to explore the lived experiences of the preservice teachers as they participate in videotape analysis of their own teaching.

This chapter contains my theoretical frame and assumptions that directed my research. In it I have explained my research design and provided a rationale for my decisions in selecting the research methods for this study. I have discussed the context, the site, and the participants of the study and how these were chosen. To conclude, I have summarized the data collection procedures and described how I analyzed the data.
Theoretical Frame

Learning to become a teacher is a complex process (Ayers, 2001; Berliner, 1986; Erickson & MacKinnon, 1991; Lampert, 2001) that requires preservice teachers to take on both the role of a teacher and a student. The development of preservice teachers entails taking on the role of both a teacher and a student; in order to inquire about and investigate ways that result in enhanced student learning. Future teachers need to develop multiple perspectives and novel ways of thinking that will help them contemplate the teaching and learning process as both a teacher and a student (Greenwalt, 2008) in order to understand how their actions as a teacher impacts student learning. This intricate process of acquiring a dual perspective requires interaction with others during study, observation, thought, application, and reflection upon one’s own development.

In “The Relation of Theory to Practice in Education” Dewey (1904) suggested that the way preservice teachers are prepared to think about their work and experiences may be of more value than the explicit techniques of teaching and management that are often highlighted in teacher education programs. Therefore, the potential benefits of an inquiry-oriented approach and reflective thinking by preservice teachers through videotape analysis deserve exploration because videotape analysis offers an opportunity for preservice teachers to think about their teaching.

Dewey (1938/1998) also argued the importance of teachers comprehending what they observe, contending that it is not enough simply to watch classroom occurrences; instead “[they] have to understand the significance of what [they] see, hear, and touch” (p. 80). The ability to determine the meaning and relevance of observations requires
people to think about what they observed, develop questions about their observations, draw upon their prior experiences, reflect upon those experiences, discuss possible implications with others, and draw conclusions. Simply viewing oneself on a video neither deepens understanding nor promotes critical thinking (Brookfield, 1995), but additional processes (noting specific events, asking questions about particular incidents, discussing possible meanings with others, eliciting the views of peers) taking place during videotape analysis sessions may assist preservice teachers in comprehending what they observe.

In addition, Vygotsky argued, “The construction of meaning is regulated (or mediated) by social relationships” (as cited in Moll, 2001, p. 114). Following a social constructivist line of thinking, Vygotsky asserted that learning occurs through social interactions, which should be examined by researchers and educators. According to Vygotsky (1978), “Human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them” (p. 88). He claimed that individuals are able to accomplish particular tasks that they would not be able to achieve on their own when they collaborate with a capable partner. Following Vygotsky’s theories, “scholars have suggested that the learning process is one in which an adult or more capable peer, interacting with the learner, provides a scaffold to aid learning and development” (Sperling & Freedman, 2001, p. 374). The peer or adult may model the task, complete a portion of the task, or offer other forms of assistance when acting as a scaffold, which is gradually removed as the learner grows able to carry out the task independently.
This is similar to Dewey’s (1938/1998) principle of interaction, in which he recognizes the significance of individuals’ contact with other people and objects and calls for the use of personal (internal) and professional (objective) knowledge during experiences inside and outside the classroom. Both of these views take into account the need to consider the roles of contact and communication in the teaching and learning process. Teaching is not an isolated occurrence, nor does it take place solely between teacher and student. Examining the contributions of peers and their impact on the learning of others will be relevant in this study.

Employing videotape analysis during early field experiences adheres to Dewey’s claims of inquiry, interaction, and significance as well as Vygotsky’s social constructivist perspective. Having preservice students participate in videotape analysis of lessons they plan and teach during field experiences may enable them to develop an inquiry-oriented approach to their own teaching and learning. Similarly, preservice teachers may be afforded the opportunity to enhance their ability to understand classroom events through personal reflection and discussions with peers.

Preservice teachers are required to teach a particular number of lessons during their field experiences. I predetermined the seven processes (being videotaped, watching oneself, asking questions, selecting a clip, providing a rationale, meeting in the form of the video club, and responding to exit slips) in order to provide the participants with a framework to investigate their teaching. Videotaping during these endeavors may afford them the opportunity to observe, analyze, reflect, and discuss their own performance and that of their classmates. For many people seeing is believing, and watching oneself can be
a powerful and useful educational instrument. Collaboration and interaction among preservice teachers may also play key roles during this activity. The constructive feedback, discussions, and inquiry that should surround videotape analysis may enable preservice teachers to offer advice and suggestions as well as discover new insights and ways of thinking that they can apply to their own teaching practices. These possibilities correspond to Dewey’s (1938/1998) theory regarding the duality of interaction as both internal and objective; students respond to the visual prompt of their videotaped lesson (internal) and to colleagues regarding their lesson (objective). Openness to new ideas and suggestions is paramount to the teaching profession, and videotape analysis sessions can be structured to foster growth, collaboration, encouragement, and feedback.

Research Design

I used qualitative case study to determine how the seven processes pertaining to videotape analysis contribute, if at all, to the ability of preservice teachers to develop an inquiry-oriented approach to their teaching and learning. I chose qualitative research because it is “exploratory or descriptive . . . assumes the value of context and setting, and . . . searches for a deeper understanding of the participants’ lived experiences of the phenomenon” under consideration (Marshall & Rossman, 1999, p. 60). Case study is appropriate because it “is a detailed examination of one setting, or a single subject, a single depository of documents, or one particular event” (Bogdan & Biklen, 2003, p. 54). The case study may contribute to both educational theory and practice. The exploratory nature of case study design promotes further investigation and potentially provides an in-depth description of a specific practice to enhance understanding and use of the practice
The cases in this study were preservice teachers (specific group of people) engaged in videotape analysis (a particular activity). The case study approach has become increasingly more common in the field of educational research because it moves “in the direction of having teacher education students give voice to their experiences in the schools and, so, honor them and their connection with in-college courses” (Munby, Russell, & Martin, 2001, p. 896).

Context of the Study

The purpose of this study was to implement videotape analysis by forming a video club in a preservice teachers’ methods course that includes field experience as a portion of the course. Videotape analysis involves recording preservice teachers during the teaching of a lesson, followed by review, reflection, and critical discussion of the lesson with classmates in the context of a video club. The incorporation of videotape analysis may provide preservice teachers with an interactive activity that encourages inquiry, reflection, and collaboration.

The participants in this project engaged in field experiences while enrolled in methods courses during their junior and or senior year. Preservice teachers in the middle childhood program are grouped into two cohorts and each cohort was partnered with a middle school. The reading methods course met every Thursday morning, where the preservice teachers taught reading lessons to small groups of students after class. After working with these small groups, the preservice teachers spent the rest of day in the classroom working with a mentor teacher and students. Preservice teachers, working in
groups of three or four, taught math, science, and social studies lessons for four consecutive Tuesdays.

I obtained approval from the university’s Institutional Review Board (IRB) to conduct this research and adhered to all provisions stated in the approved documents. I selected participants and conducted initial interviews with participants (see Appendix C for interview questions). The preservice teachers were required to prepare and teach a procedural lesson as part of the course in which they are enrolled in conjunction with their field experience. The purpose of a procedural lesson is to answer how questions (how to swing a golf club, how to write a persuasive letter, how to make cookies). The teaching of this procedural lesson took place at the university, prior to teaching lessons at their field school. I videotaped the teaching of these lessons so I could practice videotaping. In addition, the preservice teachers became more comfortable with being videotaped.

I met with the participants for an observation session to discuss and practice viewing video-recorded lessons one week after they taught their procedural lessons. The purpose of this observation session was to provide the participants with an opportunity to develop observation skills, questioning skills, and note-taking skills by viewing a video case. Participants observed a 10-minute clip from an instructor’s lesson and discussed their observations. I, acting as a guide, modeled and scaffolded how to observe, take notes, and develop questions pertaining to the teaching they observed. The participants then viewed another 10-minute clip of a different video case and discussed their observations. After the session the preservice teachers responded to questions about it.
(see Appendix D for all questions) to note how the observation session fostered, if at all, their observation skills.

Preservice teachers were required to plan and teach at least three lessons during their field experience. I videotaped each participant 3 times. I met with the preservice teacher to view the lesson after it was videotaped. The preservice teacher recorded noticings while viewing the lesson. I asked the preservice teacher what he/she noticed about the lesson and what questions he/she had about the lesson. The preservice teacher developed questions about a particular portion of the lesson, and the selected clip(s) coincided with those questions. The preservice teacher brought the list of noticings and questions to the video club meeting.

I met with all 4 participants every Wednesday in a conference room at the university for approximately two hours in sessions of what will be called a video club. Either one or two preservice teacher’s video clips were discussed during the meetings depending upon time constraints. During successive sessions one at a time, the preservice teachers introduced their lesson and provided some context as well as the questions they had about their teaching. All viewed the video clip and took notes while viewing. After the clip had been viewed, the preservice teacher whose lesson was under consideration restated her or his questions, and all engaged in a discussion pertaining to those questions.

All participants responded exit slips, questions pertaining to the video club session, (see Appendixes E and F) at the end of the first 2 sessions. The exit slips were given to the participants right after the video club meetings. This format was altered after
the second meeting. Exit slips were emailed to the participants due to the length of the meetings; participants stated their responses were hastily written after spending over 2 hours in the video club session (see Appendixes G, H, I, and J for exit slips). I conducted individual interviews with all 4 participants after all sessions of the video club were completed (see Appendix K for all questions). Table 1 provides a timeline of monthly events that took place during this study. Tables 2 and 3 present agendas for the video club meetings that met every Wednesday at the university.

Table 1

*Timeline of Monthly Events*

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>Initial meeting with potential participants from one cohort of the middle childhood education program</td>
</tr>
<tr>
<td></td>
<td>Narrow selection of potential participants</td>
</tr>
<tr>
<td>September</td>
<td>Met with 8 potential participants</td>
</tr>
<tr>
<td></td>
<td>Selected 4 participants</td>
</tr>
<tr>
<td></td>
<td>Initial interviews with participants</td>
</tr>
<tr>
<td></td>
<td>Videotape procedural lesson of 4 participants</td>
</tr>
<tr>
<td>October</td>
<td>Observation session</td>
</tr>
<tr>
<td></td>
<td>Videotape participants at field school</td>
</tr>
<tr>
<td></td>
<td>Video club meetings at the university</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 1 (continued)

*Timeline of Monthly Events*

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November</td>
<td>Videotape participants at field school</td>
</tr>
<tr>
<td></td>
<td>Video club meetings at the university</td>
</tr>
<tr>
<td>December</td>
<td>Videotape participants at field school</td>
</tr>
<tr>
<td></td>
<td>Video club meetings at the university</td>
</tr>
<tr>
<td></td>
<td>Exit interviews at the university</td>
</tr>
</tbody>
</table>

Table 2

*Agenda for Video Club Meetings 1 and 2*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clip Introduction</td>
<td>Preservice teacher gives a brief description of the selected clip; provides contextual information, states question(s) pertaining to clip and why clip was chosen</td>
</tr>
<tr>
<td>(Student A)</td>
<td></td>
</tr>
<tr>
<td>View clip #1</td>
<td>All participants view first video clip</td>
</tr>
<tr>
<td>List noticings</td>
<td>All participants share their noticings</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 2 (continued)

*Agenda for Video Club Meetings 1 and 2*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clip introduction</td>
<td>Preservice teachers gives a brief description of second clip (Student A)</td>
</tr>
<tr>
<td>View clip #2</td>
<td>All participants view second video clip</td>
</tr>
<tr>
<td>List noticings</td>
<td>All participants share their noticings</td>
</tr>
<tr>
<td>Discussion</td>
<td>All participants talk about the noticings; questions about Teaching and learning emerge</td>
</tr>
</tbody>
</table>

*Cycle repeated for Student B*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflection</td>
<td>Participants respond to exit slip questions immediately following meeting</td>
</tr>
</tbody>
</table>

Table 3

*Agenda for Video Club Meetings 3 - 7*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clip Introduction</td>
<td>Preservice teacher gives a brief description of the selected clip; provides contextual information, states question(s) (Student A)</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 3

*Agenda for Video Club Meetings 3 - 7*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>View clip #1</td>
<td>All participants view first video clip</td>
</tr>
<tr>
<td>List noticings</td>
<td>All participants share their noticings</td>
</tr>
<tr>
<td>Clip introduction</td>
<td>Preservice teachers gives a brief description of second clip (Student A)</td>
</tr>
<tr>
<td>View clip #2</td>
<td>All participants view second video clip</td>
</tr>
<tr>
<td>List noticings</td>
<td>All participants share their noticings</td>
</tr>
<tr>
<td>Discussion</td>
<td>All participants talk about the noticings; questions about teaching and learning emerge</td>
</tr>
</tbody>
</table>

*Cycle repeated for Student B*

Reflection  
Researcher emails exit slip to all participants the next day, participants respond to questions, and participants send responses to researcher

*Note.* Only one participant shared his/her clip during video club meetings #3 and #4

*Research Site*

The site where the videotaping of the preservice teachers took place was a mid-sized, suburban intermediate school selected by the university for the placement of the preservice teachers for their field experience. I worked with a professor at our university...
to obtain permission from the school principal to conduct the research at this field school. The principal asked cooperating teachers’ permission to conduct research in their classrooms. Two cooperating teachers volunteered to allow research to be conducted in their classrooms, and the preservice teachers were placed in those cooperating teachers’ classrooms. I met with the two cooperating teachers to provide details about the research study and the expectations of the preservice teachers and the cooperating teachers. I then obtained consent from the parents whose children were in the classrooms where videotaping occurred. Letters and consent forms (see Appendixes L and M) were sent home to the parents, returned to the field school, collected by the cooperating teachers, and given to me.

The participants met with me at the university for the video club sessions. Here, we had access to a conference room with all the necessary audio and video equipment needed to view the videotaped lessons.

Research Participants

All participants, two females and two males, were undergraduate preservice teachers seeking middle childhood education state licensure and education degrees at a large university in Ohio. They varied in their areas of concentration (social studies, language arts, science, and math). This was the participants’ first field experience requiring them to teach lessons as part of the course curriculum.

Selection of Participants

Purposeful selection, which was employed to determine which preservice teachers would participate in the study, was warranted because according to Creswell (1994) “the
idea of qualitative research is to purposefully select informants (or documents or visual material) that will best answer the research question” (p. 148). Purposeful sampling was also appropriate because it “increase[s] the utility of information obtained from small samples” (McMillan & Schumacher, 2001, p. 401). I obtained information about the differences among the potential cases prior to selecting the participants to identify “information-rich key informants, groups, places, or events to study” (McMillan & Schumacher, p. 401). Selecting a few participants for deep study produced several significant findings about the use of videotape analysis with preservice teachers.

I elicited participation from middle childhood preservice teachers in one of the two cohorts at the university. I briefly described the study and my expectations for the participants. My explanation of the study emphasized the investigatory nature of participating in the video club; their participation in the project was to examine their teaching practices, not to evaluate their practice. In addition, I notified the potential participants that their decision either to participate or not participate would have no bearing on their grade. All members of one cohort of the middle childhood program were asked to answer four open-ended questions (see Appendix A). I read the responses and narrowed the pool of potential participants. Criteria that were used to narrow down the selection included willingness to participate, interest in participation, availability, out-of-school responsibilities, and attitude toward purpose of field experience. I then asked the select group of potential participants to respond to four additional questions in order to ascertain their reasons for participating, their expectations for participating in the research study, the details of the flexibility of their schedule, and their willingness to commit to
participate in this research project (see Appendix B). The purpose of the second group of questions was for the preservice teachers to elaborate on their responses and for me to determine which candidates would be able to fulfill the research design requirements. Four participants were selected to take part in the study based upon their responses, willingness, and availability to participate. I met with the preservice teacher participants to sign consent forms (see Appendix O), discuss the project, and set dates for initial interviews, videotaping, and the first video club meeting once the 4 participants were selected.

Researcher as Participant

According to Rubin and Rubin (2005) “the researcher is the instrument, the tool of discovery” (p. 37). As such, the “presence [of the researcher] in the lives of the participants invited to be part of the study is fundamental to the paradigm” (Marshall & Rossman, 1999, p. 79). I intended to have a considerable presence in my study because my role as a researcher served several functions. First, I observed the preservice teachers during their experiences at the field school as well as during the videotape analysis sessions. Second, I was responsible for videotaping the preservice teachers’ lessons during their field experience. Third, I instructed the preservice teachers during the initial observation session. I modeled how to observe a lesson and helped the participants recognize the importance of noticing different facets of classroom life during this time. Fourth, I acted as a guide and a facilitator during video clip selections and video club meetings. Fifth, I conducted all interviews with the preservice teachers and collected and
analyzed data in the forms of exit slips, emails, fieldnotes, memos, transcripts, videotapes, and other significant artifacts.

As a novice qualitative researcher I undoubtedly made mistakes, and I will take responsibility to reveal them in the next chapter. According to Lareau (1996) all qualitative researchers inevitably experience errors and confusion in their research. . . . Many decisions must be made, some of which—in retrospect—are regrettable. This is true in all research, but in qualitative methods the mistakes are usually carried out and observed by the researcher first hand. (p. 221)

In order to ensure ethical practices, I adhered to the proposal submitted to and approved by the IRB. Consent forms were also obtained from any and all participants (see Appendixes J & K), including consent from the parents of the minor students in the classroom (see Appendix I). Confidentiality will be maintained through the use of pseudonyms when the research is published.

Data Collection Strategies

Data represents “the rough materials researchers collect from the world they are studying” to help them “think soundly and deeply about the aspects of life” (Bogdan & Biklen, 2003, p. 109) they investigate. Various types of qualitative data were collected over a period of 16 weeks to help me answer my research question. These included questionnaires, interviews, transcripts, videotapes of preservice teachers teaching their lessons, exit slips, memos, fieldnotes, forms prepared by the preservice teachers used during video club meetings, and various artifacts from the participants (lesson plans, course syllabus, charts, etc.).
Questionnaires

Marshall and Rossman (1999) stated that questionnaires are given “to some sample of a population to learn about the distribution of characteristics, attitudes, or beliefs” (p. 129). Researchers who use questionnaires (a) assume that the characteristics or attitudes can be described through self-report, (b) must rely upon participants to respond honestly and accurately to the questions, and (c) are provided with a convenient way to collect data quickly (Marshall & Rossman). I used questionnaires as part of my purposeful selection process to narrow and select my group of potential participants in a timely fashion (see Appendixes A & B).

Interviews

Rubin and Rubin (2005) maintained that responsive interviewing (a) values people’s diverse views; (b) promotes the development of a relationship between the interviewer and the interviewee; (c) helps to “generate depth of understanding, rather than breadth” (p. 30); and (d) is adaptable. The goal of my research was to use the foregoing characteristics of responsive interviewing as a model for my interviews. Employing this model required me to (a) reflect constantly upon my own interpretations and reactions; (b) strive to attain a deep understanding of the topic by drawing out stories, explanations, and narratives that provide concrete explanations; (c) remain open to changes and adjustments in the research design and questions; and (d) avoid imposing my views upon the interviewee (Rubin & Rubin, 2005).

The wording of interview questions must be precise in order to obtain the specific information needed to answer the research question; however, the questions must be
open-ended to enable the interviewees to explain their knowledge completely (Rubin & Rubin, 2005). Creswell (1994) recommended using “a grand tour question” (p. 70) to ask about the research topic in general terms, followed by subquestions to acquire more detailed information. Rubin and Rubin (2005) suggested using this tour approach because the researcher places the interviewees in the role of a guide to walk “[the researcher] through their turf while pointing out what they think is important on the way” (pp. 159–160). I used questions that open broadly enough to learn about the topic and become narrower to uncover specific information (Creswell, 1994; Rubin & Rubin, 2005). The order in which questions were asked also needed to be considered. Asking chronology questions (Rubin & Rubin, 2005) allowed me to inquire about specific events during the research and the participants’ thinking during those events. I interviewed the participants at the beginning and the end of the research study; interviews at these two stages helped me answer my research question because I was able to compare and contrast the participants’ thinking before and after their participation in videotape analysis (see Appendixes C and K).

The interviews were constructed around main questions that highlighted the central part of the research. Using probes helped me “manage the conversation by regulating the length of answers and degree of detail, clarifying unclear sentences or phrases, filling in missing steps, and keeping the conversation on topic” (Rubin & Rubin, 2005, p. 164). Verbal probes, such as “Tell me more about that” or “Keep going” and nonverbal probes, such as pausing and note-taking, were used when appropriate.
Transcripts

Transcripts are written accounts of what a participant says in response to an interviewer’s question (Rubin & Rubin, 2005; Schwandt, 2001). The act of transcription is the “recording and preparing a record of the respondents’ own words” (Schwandt, p. 255). The level of precision of transcripts varies depending on their use; however, transcripts should convey the essence of the interview according to Rubin and Rubin, who also advised researchers to “put into the transcript only the level of detail we are likely to analyze and include any information that might influence the interpretation, such as laughter or gestures of emphasis or puzzlement” (p. 204).

I transcribed audio taped interviews and audio taped video club meetings. Data were transcribed verbatim; I noted pauses or long silences in brackets.

Exit Slips

Exit slips are commonly used by middle and high school teachers to provide them with a representation of student learning (Daniels & Zemelman, 2004) at the end of a class. Teachers may use note cards to have students record a question they have, make a prediction about a story, or note what was most helpful to them during class. Brookfield (1995) used exit slips referred to as a critical incident questionnaires with college students to encourage reflection. For my research, an exit slip was a piece of paper with a few questions on it meant to help preservice teachers reflect upon an event they had just experienced. Participants completed an exit slip after the observation session and after each video club meeting. I used these slips to understand the participants’ thinking and discover which aspect of the videotape analysis were helpful, if it all, in their
development of an inquiry-oriented approach to their teaching and learning (see Appendixes D, E, F, G, H, I, and J).

Fieldnotes

A form of evidence on which the researcher establishes assertions about meaning and understanding (Schwandt, 2001), fieldnotes comprise both descriptions and reflections (Bogdan & Biklen, 2003). Descriptive fieldnotes should provide objective documentation of what took place in the field, including descriptions of the physical setting, activities, observer’s behavior, the participants, and discussions, in order to collect evidence that is “well endowed with good descriptions and dialogue relevant to what occurs at the setting and its meaning for the participants” (Bogdan & Biklen, p. 114). These written accounts of what the researcher sees, experiences, hears, and thinks (Bogdan & Biklen, 2003; Marshall & Rossman, 1999) provide the researcher with “detailed, nonjudgmental, concrete descriptions on what has been observed” (Marshall & Rossman, p. 107). Bogdan and Biklen (2003) encouraged the use of fieldnotes because they (a) aid the researcher in collecting and reflecting upon the data, (b) help the researcher monitor the progress of the study, (c) supplement additional data collection methods, and (d) “can improve the quality and speed of [the researchers’] writing” [because fieldnotes] “will come from the top of [their] head and represent [their] particular style” (Bogdan & Biklen, p. 112).

Reflective fieldnotes include a more personal description of events during the study and are often referred to as memos (Bogdan & Biklen, 2003; Maxwell, 2005; Schwandt, 2001). Maxwell (2005) encouraged the use of memo writing because “memos
are one of the most important techniques [researchers] have for developing [their] own ideas” (p. 12). Memos help them (a) analyze the data, (b) reflect on tensions and ideas, (c) assess the study, and (d) understand the data better (Bogdan & Biklen, 2003; Maxwell, 2005; Strauss & Corbin, 1998). My fieldnotes were both descriptive and reflective; descriptive accounts will be known as fieldnotes, and reflections will be referred to as memos.

Summary of Data Collection Procedures

Table 4 presents a summary of the weekly data collection procedures used throughout the study.

Table 4

Weekly Data Collection Schedule for Participants

<table>
<thead>
<tr>
<th>Data Collected</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrowed Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Formal Interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videotaping of Procedural Lesson</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(table continues)
Table 4 (continued)

*Weekly Data Collection Schedule for Participants*

<table>
<thead>
<tr>
<th>Data Collected</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation Session</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videotaping of Lesson</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Video Clip Selection</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Video Club Meeting</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Exit Slips</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

*Note.* A = potential participants; X = selected participants

**Rationale for Data Collection**

Table 5 provides a rationale for each research question and data collection method.
Table 5

*How Data Will Inform the Research Questions*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do the seven processes pertaining to videotape analysis contribute, if at all, to preservice teachers’ ability to develop an inquiry-oriented approach to teaching and learning?</td>
<td><em>Formal interview about field experience and expectations</em></td>
</tr>
<tr>
<td></td>
<td><em>Participants will take part in an observation session</em></td>
</tr>
<tr>
<td></td>
<td><em>Exit slip after observation session</em></td>
</tr>
<tr>
<td></td>
<td><em>Participants are videotaped during the teaching of at least two lessons</em></td>
</tr>
<tr>
<td></td>
<td><em>Participants meet with researcher to view and select a clip</em></td>
</tr>
<tr>
<td></td>
<td><em>Participants record question(s) they have with regard to their teaching from selected clip</em></td>
</tr>
<tr>
<td></td>
<td><em>Participants view, analyze, and discuss video clips</em></td>
</tr>
<tr>
<td></td>
<td><em>Participants complete exit slips after video club meetings</em></td>
</tr>
</tbody>
</table>

*(table continues)*
Table 5 (continued)

*How Data Will Inform the Research Questions*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Participants may email additional insights days after video club meetings</em></td>
<td></td>
</tr>
<tr>
<td><em>Interviews after all video club sessions</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants will take part in an observation session</em></td>
<td></td>
</tr>
<tr>
<td><em>Exit slip after observation session</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants view and discuss procedural lesson</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants are videotaped during the teaching of a lesson they created</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants meet with researcher to view and select a clip</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants record question(s) they have about their teaching from selected clip</em></td>
<td></td>
</tr>
</tbody>
</table>

*(table continues)*
Table 5 (continued)

*How Data Will Inform the Research Questions*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Participants view, analyze, and discuss video clips</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants complete exit slips after video club meetings</em></td>
<td></td>
</tr>
<tr>
<td><em>Participants may email additional insights days after video club meetings</em></td>
<td></td>
</tr>
<tr>
<td><em>Interviews after all video club meetings</em></td>
<td></td>
</tr>
</tbody>
</table>

**Data Analysis Strategies**

Data analysis is meant to organize data, establish order, and decipher data (Marshall & Rossman, 1999). Because it is viewed as “a messy, ambiguous, time-consuming, creative, and fascinating process” (Marshall & Rossman, p. 150), on-going data analysis took place throughout the duration of the study. I obtained rich data for analysis and conclusions. I took fieldnotes during the videotaping of the preservice teachers and the video club sessions. I listened to all interviews and viewed the clips prior to transcription. All interviews and video club sessions were transcribed. Memos were
generated to note thoughts, pose questions, and reflect on the current state of the study. During and after transcription, I also composed memos. Bogdan and Biklen (2003) recommended researchers write memos after reading initial fieldnotes to summarize what they think is unfolding and to “develop links in that summary between observer’s comments” (p. 152).

During the process of data analysis, Strauss and Corbin (1998) recommended asking such questions as the following:

- What is going on here? What problems, issues, happenings are being handled through action/interaction, and what forms does it take? What conditions combine to create the context in which the action/interaction is located? Why is the action/interaction staying the same? Why and how is it changing? How do the consequences of one set of actions/interactions play into the next sequence of action/interactions to either alter the actions/interactions or allow them to stay the same? (pp. 168–169)

These questions were used during the data analysis process in order to ensure that all pieces of data were carefully scrutinized and considered. Findings were based on the evidence discovered during analysis and were compiled and reported.

I read and reread the transcribed information and categorized (Bogdan & Biklen, 2003) information into topics as well as took note of evidence and descriptions of these topics. I also used constant comparative analysis (Bogdan & Biklen, 2003; Marshall & Rossman, 1999), whereby I read, reread, coded, and categorized major themes and insights. Once I established major themes and insights, I “engage[d] in critically
challenging the very patterns that seem so apparent” (Marshall & Rossman, 1999, p. 157). This allowed me to seek and consider additional reasons for these themes and the associations between them. Because additional reasons emerged, I named and discussed them, justifying their validity.

Strategies for Achieving Validity

Maxwell (2005) referred to validity as “the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account” (p. 106). Validity entails using strategies to locate and rule out alternative explanations referred to as threats (Bogdan & Biklen, 2003; Maxwell, 2005). In order to ensure validity, I (a) obtained rich data, (b) triangulated data, (c) engaged a peer debriefer, and (d) revealed limitations.

Bogdan and Biklen (2003) stated that “rich data are filled with pieces of evidence, with the clues that [researchers] begin to put together to make analytical sense out of what [they study]” (p. 114). Rich data are diverse and thorough enough so as to provide a “full and revealing picture of what is going on” (Maxwell, 2005, p. 110). I obtained rich data by collecting a variety of data (interviews, videotapes, and exit slips) in a detailed manner (transcripts, fieldnotes, and memos). I collected multiple forms of data and systematically recorded evidence in an effort to provide a reliable description and analysis of my study.

Maxwell (2005) stated that triangulation is “collecting information from a diverse range of individuals and settings, using a variety of methods” to reduce “the risk of chance associations and of systematic biases due to a specific method, and allows a better
assessment of the generality of the explanation that one develops” (p. 12). Using numerous sources of data is advantageous because several sources can guide the researcher to a more comprehensive understanding of the event being studied (Bogdan & Biklen, 2003; Creswell, 1994; Maxwell, 2005; Schwandt, 2001). I gathered data from four different individuals in different settings (at the field school, while viewing videotapes of lessons, and during video club sessions) and in a variety of methods (reflective writings, videos, and interviews) in an effort to understand my research from multiple perspectives and means.

Peer debriefing involved talking with a colleague and “sharing one’s evolving attempts at describing and analyzing qualitative data to achieve some kind of consensual validation” (Schwandt, 2001, p. 188). A peer debriefer asked probing questions to help the researcher gain a solid understanding of the information discovered (McMillan & Schumacher, 2001). I confided in two colleagues, who served as a resource to discuss dilemmas, concerns, and ideas; I sought advice and suggestions from these colleagues throughout my study.

According to Creswell (1994), limitations should be disclosed in order to identify “a potential weakness in the design of the study” (p. 110). One limitation to this study involved the selected participants. I had to select participants whose schedules coincided and allowed them to meet on a regular basis. Another limitation was that this study focused on preservice teachers during the first field experience in which they were required to plan and teach a lesson by themselves. In addition, the preservice teachers had limited opportunities to teach; although they engaged in an inquiry-oriented process that
encouraged them to ask questions about their teaching, they had limited opportunities to take what they were learning about the teaching and learning process and continue to develop in those areas in the classroom. An additional limitation to consider was the interviews with the preservice teachers, during which I had to rely upon the honesty and cooperation of the selected participants. Furthermore, I may not have asked questions that elicited in-depth responses or may have misconstrued the responses provided by the participants (Marshall & Rossman, 1999). A final limitation was the use of video. Video recordings “seemingly catch and preserve almost everything occurring within an interaction” yet “actually capture but a slice of ongoing social life” (Emerson, Fretz, & Shaw, 1995, p. 9). How, when, and where the video camera was positioned dictated what was recorded and determined the available selection of video for the participants to view and select to share in the video club. The presence and effect of the video camera on both the participants and the students posed additional considerations. Berg and Smith (1996) acknowledged the possible impact of a video camera on students’ behavior yet contended that any effect will “diminish over time” (p. 33).

Conclusion

The focus of this study was to examine and analyze how the seven processes pertaining to videotape analysis contributed, if at all, to preservice teachers’ ability to develop an inquiry-oriented approach to their teaching and learning and their reflective thinking about their teaching and learning. Additional intentions of this research that stem from the foregoing focal point included investigating the types of questions preservice teachers asked about their teaching, what preservice teachers noticed when viewing
videos of their teaching and that of their peers, and what preservice teachers did with the information they obtained through videotape analysis and discussion. Conducting research and producing findings that will contribute to the field of teacher education were additional aims.

Research has been conducted in the areas of field experiences, reflection, and video recordings in order to understand how these entities contribute to the teaching and learning processes of preservice teachers; however, research that examines how the seven processes involved in videotape analysis contribute, if at all, to preservice teachers’ ability to develop an inquiry-oriented approach to their teaching and learning as well as encourage reflective teaching about their practice during field experiences was needed in order to determine its purpose, place, application, relevance, and benefits.
CHAPTER IV

FINDINGS

Introduction

The purpose of my study was to investigate the participation of 4 preservice teachers in videotape analysis in the form of a video club during their first teaching field experience at a local school. The following research question guided the study: How do the seven processes (being videotaped, viewing one’s lesson, selecting a clip, providing a rationale, asking questions about teaching, meeting in the form of a video club, and exit slips) pertaining to videotape analysis contribute, if at all, to preservice teachers’ ability to develop:

(a) an inquiry-oriented approach to teaching and learning?
(b) reflective thinking pertaining to their teaching and learning?

In my attempt to answer the first portion of the research question, I identified the preservice teachers’ ability to develop an inquiry-oriented approach to their teaching. Dewey (1933) maintained that inquiry starts with a question, attempts to seek solutions, and makes us aware of our actions. A teacher who uses this problem-based approach to teaching and learning needs to notice classroom events, discover moments of uncertainty in ones’ teaching, form questions about one’s practice, reflect on one’s teaching, and seek solutions to those queries. My first finding pertains to how the seven predetermined processes (being videotaped, viewing one’s video, selecting a clip, providing a rationale,
asking questions about one’s teaching, meeting in the video club, and responding to exit slips) that the participants engaged in helped them investigate their teaching.

Reflection—thinking about one’s practice in order to enhance it—is implemented into teacher education programs in different ways for different purposes. The foundations of these purposes can be linked to the works and philosophies of Rene Descartes, John Dewey, and Donald Schon. Descartes asserted that the purpose of reflection is self-awareness (Nadler, 1989). This type of reflection entails recalling and drawing upon prior experiences to think about their impact on one’s existing ideas and actions as well as serve as a source of information to make decisions about one’s teaching (Putnam & Grant, 1992). Dewey contended that reflective thinking is a form of inquiry into one’s practice where one identifies a problem and seeks solutions (Ciriello et al., 1992; Dewey, 1933; Fendler, 2003; Rich & Hannafin, 2008). This type of reflective thinking requires one to develop the abilities to become aware of and locate troubles related to one’s practice as well as thinking about and locating answers to these troubles. Schon (1983, 1987) argued that teachers engage in reflective thinking during and after teaching. Reflection-in-action is thinking about one’s practice during the act of teaching while reflection-on-action is thinking about one’s practice after the teaching endeavor.

Research has been conducted to examine how these different reflective theories are implemented into teacher education programs on an individual basis (Brown, 1999; Chitpin, Simon, and Galipeau, 2008). The study participants engaged in a variety of activities (watching own lesson, asking questions about practice, discussions, responding to exit slips) designed to stimulate and enhance reflective thinking. My second finding
pertains to the participants’ ability to develop their reflective thinking. Data analysis revealed that the participants’ involvement in the seven processes prompted them to partake in different forms of and purposes for reflective thinking. Findings pertaining to the reflective thinking aspect of my question were revealed during my efforts to answer the first part of my research question. My third finding highlights the interconnection between reflection and investigation; participants engaged in reflective thinking to help them investigate their teaching while experiencing the seven different processes of videotape analysis. Figure 1 illustrates the connection between the seven processes of videotape analysis with reflection and inquiry.

Figure 1. Connection between reflection and the seven processes of videotape analysis.
The need for and importance of modeling and scaffolding is the focus of my fourth finding. My role as a guide and facilitator during the different processes helped the participants investigate and think about their teaching.

Two additional findings were discovered during my attempt to answer my research question. First, I concluded that the act of noticing classroom events strongly influenced the participants’ ability to reflect on and investigate their teaching. Second, I determined which processes the participants claimed were most helpful in promoting their development of reflective thinking as well as an inquiry-approach to their teaching and learning.

Review of the Study

Using qualitative case study, I examined the lived experiences (Bogdan & Biklen, 2003; Marshall & Rossman, 1999) of 4 preservice teachers, selected as study participants, who participated in a video club during their first field experience teaching at a field school. For this study, a video club was defined as a group of preservice teachers who met to view and discuss videotaped segments of their teaching (Sherin & Han, 2004). I collected data in the form of questionnaires, interviews, videotapes of participants teaching their lessons, exit slips, and fieldnotes throughout the 16-week study.

I selected 4 participants from a potential group of 18 preservice teachers enrolled in a middle childhood education program at a Midwestern university. Participants were selected based on their desire to participate, availability to meet, and willingness to commit to participating in the research study. I then conducted individual initial interviews (See Appendix C) with all 4 participants to better understand their ideas about
field experience, observing a lesson, and reflection. The participants and I met as a group at the university 2 weeks after the initial interviews where I videotaped them while they individually taught a procedure lesson to the group. This meeting allowed me to practice videotaping the participants and helped the participants grow accustomed to being videotaped while teaching.

One week after videotaping the participants’ procedure lessons, I led an observation session with the participants in a conference room at the university. My purpose was to help the participants develop their observation, questioning, and note-taking skills while observing an instructor’s lesson. We viewed, took notes on, and discussed a 10-minute clip of an instructor’s lesson, and repeated the process. The participants responded to predetermined questions on exit slips (See Appendix D) at the end of the session, the purpose of which was to see if the observation session enhanced their observation skills.

I videotaped each participant three times while they taught at the field school during the next 8 weeks. Immediately after being videotaped, participants viewed their lesson, selected clips, and developed questions pertaining to their lesson that they would share with the group during video club meetings. As the researcher, I observed the participants while they viewed their lesson and recorded my own noticings. I talked with the participants about their noticings and shared some of my noticings. As a researcher participant, I helped participants select clips and craft questions during their second and third viewing and clip selection.
All 4 participants and I met together every week for 7 weeks in a conference room at the university for approximately 2 hours in order to view, record, and discuss their noticings from the clips. Cameron and Chloe shared their clips during the first and second video club meetings. Chloe shared her clips during the third meeting while Cameron shared his during the fourth meeting. Austin and Victoria shared their clips during the fifth, sixth, and seventh video club meetings. Each meeting began with one participant providing the context of the clip and posing the question(s) they had created pertaining to it. The other participants viewed the clip and recorded their noticings, which they later shared with the presenting participant, who then recorded the noticings on chart paper. Recording noticings on chart paper enabled participants to see, think about, and discuss their thoughts and review prior noticings during subsequent sessions. Spontaneous discussions occurred as a result of the shared noticings. This view–record–discuss cycle was repeated when 2 participants shared clips instead of 1 participant. Over the course of the meetings, additional questions about participants’ teaching and learning that were not crafted prior to meetings emerged from both the participants and me. These questions were also recorded on chart paper for the purpose of documentation.

The participants reflected upon each video club experience by responding on exit slips after the meetings. Participants initially filled out exit slips immediately after the first and second meetings; however, after subsequent video club meetings, exit slips were emailed to participants one day after the meeting because participants stated they would prefer to have additional time to reflect on their experience. Exit slips were used to help answer my research question and provide evidence of reflective thinking. I conducted
individual exit interviews with each of the 4 participants at the end of the study (see Appendix K). Exit interview questions were broad enough to learn about their overall experience yet became more specific to uncover detailed information (Creswell, 1994; Rubin & Rubin, 2005).

Videotape Analysis in the Form of a Video Club

Engaging in the seven processes (being videotaped, viewing one’s teaching, selecting a clip, providing a rationale, forming questions, meeting in the form a video club, and responding to exit slips) of videotape analysis is a way for preservice teachers to use an inquiry-oriented approach to teaching and learning and develop their reflective thinking as they learn how to teach. Dewey (1913/1966) proposed that preservice teachers engage in a problem-solving approach to better understand their experiences and rely on logic, rather than instinct, when making decisions.

In my findings I chronologically report the answers to my research question to reflect the order in which the events took place during my study. First, I discuss findings pertaining to the observation session to establish the importance of modeling as well as reveal the participants’ developing ability to investigate and reflect on their practice. Second, I discuss my findings in regards to the seven processes (being videotaped, watching one’s teaching, selecting a clip, providing a rationale, asking questions about one’s teaching, meeting in the form of a video club, and responding to exit slips) of videotape analysis and how each process helped the participants develop an inquiry-oriented approach to their teaching and learning as well as encourage them to engage in reflective thinking about their practice.
In addition, I discuss two additional findings that were discovered during my attempts to answer my research question. These additional findings are important because they contributed to the participants’ ability to reflect on and develop an inquiry-oriented approach to their teaching and learning. The first of these additional findings pertains to the act of noticing classroom events and the second finding concerns which processes the participants claimed were most helpful in promoting their development of this approach.

Observation Session

An observation session took place at the beginning of the study to introduce participants to the inquiry-oriented approach to teaching and learning. The session allowed me to provide participants with instruction on how to observe a lesson, notice and record classroom events, and ask questions about teaching. Providing the participants with guidance and the opportunity to practice becoming more familiar with observing a lesson adheres to Vygotsky’s (1978) assertion that modeling is an important element of the learning process.

The observation session was important because it helped prepare the participants for their future investigations. I conducted a session on observing a lesson to help participants enhance their ability to notice different classroom facets (sequence of events during a lesson, student-student interactions, teacher-student interactions, classroom environment, etc.). I provided the participants with copies of their responses to a question from their initial interviews, which was “What do you do when you are asked to observe a lesson?” (see Table 6) to provide them with a visual reminder of their answers. Results from the individual initial interviews in September indicated that the participants believed
their primary focus during observations should be on the teacher. Other focal points, such as subject matter, activities, student thinking, student comprehension, and classroom environment were not mentioned. The participants’ general responses suggested a lack of knowledge with regard to exactly what is to be done when observing a lesson. Table 6 provides a list of the participants’ responses from their initial interviews whereby they initially focused on three items.

Table 6

*Participants’ Responses to “What do you do when observing a lesson?”*

<table>
<thead>
<tr>
<th>Focal Point</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Look for classroom management techniques and strategies</td>
</tr>
<tr>
<td></td>
<td>Look at what the teacher does so the students respect her</td>
</tr>
<tr>
<td></td>
<td>Observe how the teacher transitions from small group to whole class</td>
</tr>
<tr>
<td></td>
<td>Notice who the teacher calls on and how often students are called on</td>
</tr>
<tr>
<td></td>
<td>Make a seating chart based on the names the teacher calls</td>
</tr>
<tr>
<td></td>
<td>Notice how teachers interact with individual students and whole class</td>
</tr>
<tr>
<td>General</td>
<td>Sit in the back of the classroom and watch</td>
</tr>
<tr>
<td></td>
<td>Take notes</td>
</tr>
<tr>
<td></td>
<td>Observe for a while and then interact with individual students</td>
</tr>
<tr>
<td></td>
<td>Learn things students want to do in the classroom</td>
</tr>
</tbody>
</table>

*(table continues)*
This led to a discussion of additional entities that should be observed and why they need to be taken into consideration when observing a lesson. I then provided the students with additional elements to notice (classroom methods, materials and activities, subject matter, teacher–student rapport, physical environment) when they were unable to state additional facets to observe.

In addition, during this observation session, the participants were instructed to look for and note specific evidence to support their observations while viewing the video clip. This supporting evidence could be used to add context and clarity to their observations. When Chloe stated that she noticed “the teacher was respectful of the students” (transcript, October 8, 2008), I asked her to talk more about her noticing to probe for evidence to support her statement. Chloe replied, “She complimented them on their strengths and commented on their responses. Her body language, too. She’s sitting with them in the circle, open to them, and taking part in the discussion” (transcript, October 8, 2008).
Austin added his own evidence to the same event by commenting, “She showed respect with the one student who was reluctant to give an answer because she said to him ‘You know what? I think you’re good at giving opinions’ and then said why giving your opinion was important” (transcript, October 8, 2008). Learning to record supporting evidence during an observation was deemed important by Cameron because “it gives a clearer picture of what took place... I’m able to talk more and ask more questions about what I saw when I look for specific details” (exit slip, October 8, 2008).

What the participants noticed during a lesson observation also helped them learn to develop questions. They said they noticed the students on the video used double-entry journals and sticky notes to record their thoughts. I asked the participants why those two approaches were used. Austin commented, “The teacher probably used those to help her understand student thinking, to give the students different ways to show their thinking” (transcript, October 8, 2008). The other participants agreed with Austin’s reply yet were unable to provide additional insights. Victoria asked, “Are there other ways she [the teacher] could have done that?” (transcript, October 8, 2008). Victoria’s question displayed her uncertainty about this particular portion of the lesson. I acknowledged her question as being an important part of investigating teaching. In addition, I drew attention to the progression of the events (noticing classroom events, discussing noticings, experiencing moments of uncertainty, and asking questions) and how these events work together to help investigate their practice. I informed the participants that questions about their teaching may develop from those moments of uncertainty. The participants and I worked together to develop the following questions: “(a) How do I know students
understand the content? and (b) What activities are used to let students show what they are thinking?” (transcript, October 8, 2008).

The observation session allowed the participants to be guided through the process of noticing through observation, participating in a discussion, and then the development of questions based on noticings. After the observation session, they displayed a nascent ability to notice a variety of classroom issues and details to support their observations. Participants continued to focus on the teacher; however, they noticed the methods and materials she used as well as the content of the lesson. The participants’ noticings were more advanced than their initial interview responses about what they observe during a lesson where they primarily focused on issues regarding how the teacher managed the classroom. The participants’ exit slip responses indicated a more focused approach to observing lessons. For example, Victoria stated:

You need to look at more than just the teacher. . . . You need to also look at the students, the content, and the classroom itself. This is important because all of these factors influence learning and the success of the instruction (exit slip, October 8, 2008).

The observation session also established a foundation for future classroom observations because the participants acquired knowledge of what to observe. Participants became aware of the importance of noticing events and features pertaining to the teacher, the students, the content, and the classroom, not just the teacher (Santaga et al., 2007). In addition, participants began to recognize the importance of collecting specific evidence in order to support their noticings because it allowed them to more
clearly explain and interpret what they saw as well as elicit conversation. Also benefiting the participants was the opportunity to develop questions based on their noticings and subsequent conversations as a way to understand how to investigate their own teaching and learning. With my instruction and guidance, I found that the participants were able to begin to develop the ability to (a) display an increased awareness of different classroom events and features, (b) support their noticings with evidence, (c) discuss their observations, and (d) craft questions based on observations established a foundation for future observations.

The Seven Processes of Videotape Analysis

Following the observation session, participants experienced seven predetermined processes of videotape analysis: (a) being videotaped, (b) viewing one’s video, (c) selecting video clips, (d) providing rationales for clip selections (e) formulating questions pertaining to clips, (f) meeting in the form of a video club, and (g) responding to exit slips. The participants engaged in these processes to help them develop the ability to investigate their practice while they learned how to teach.

This section will reveal my findings pertaining to how the seven processes of videotape analysis helped these participants develop an inquiry-oriented approach to their teaching and learning as well as encourage their ability to engage in reflective thinking about their teaching and learning. The order in which I reveal the processes reflects the order in which they occurred during the study. I will explain each process and explain how each process assisted in the participants’ ability to develop an inquiry-oriented approach to teaching. In addition, I will describe how the participants engaged in
reflective thinking about their teaching and learning during the seven different processes of videotape analysis.

Being Videotaped

I videotaped each of the 4 participants during the teaching of a procedural lesson in a conference room at the university before they began their field experience. The purpose for this was to get them comfortable with being videotaped because 2 participants expressed unease about being videotaped during the initial interviews. For example, Austin commented, “I’m not so fond of being videotaped, watching myself on T.V., and listening to myself. It’s not the worst thing in the world but it’s just not my favorite” (transcript, September 17, 2008). Victoria also expressed some anxiety about being videotaped yet stated, “I think it’s a great learning opportunity because it may be one way for me to become more confident in the classroom by seeing what I’m actually doing” (transcript, September 17, 2008).

In addition, both Cameron and Austin discussed prior experiences when they were videotaped during the initial interviews. Cameron shared how he was videotaped during golf lessons while Austin talked about being videotaped for choir shows and class speeches. Cameron’s past experiences with being videotaped during golf lessons provided him with prior knowledge regarding using video as a learning tool. Cameron explained:

I think that the best way to perfect something, to get good at it, to react, to respond, to make corrections, is to watch yourself doing it and I say that because
I’ve taken formal golf lessons and the first thing he does is he videotapes you.

(transcript, September 17, 2008)

He continued by saying, “The videotape will help because you can pause it and think back on what you did and how you can improve” (transcript, September 17, 2008).

I found that both Austin and Cameron displayed the Cartesian meaning of reflection when they drew upon their prior experiences with being videotaped in order to relate to their current situation. Cameron and Victoria also recognized how being videotaped may help them enhance their practice because it allows them to study their teaching. Simply talking about being videotaped enabled the participants to demonstrate both the ability to engage in reflective thinking about teaching and learning as well as recognize the importance of examining their practice in order to improve even though the participants had yet to be videotaped at this point in the study.

I then videotaped each of the 4 participants on three different occasions during their field experience. The purpose of this was to record their teaching because videotaping one’s lesson was necessary in order to participate in the subsequent processes. At the field school, I positioned the video camera in the back of the classrooms. Occasionally, students would look at the video camera while one or two would walk to the back of the room to pass in front of the video camera’s view. I did not find the video camera a disruption because the participants were able to carry out their lessons without problems related to participants’ needing to redirect the students’ attention away from the back of the room where the video camera was located.
I found that the major purpose for videotaping participants’ lessons during their field experience was to visually capture the lessons. The videos acted as visual aids for participants to study and reflect upon their practice. For example, Austin commented that being videotaped was beneficial because it provided him with a unique tool to develop his practice. Austin stated:

It actually helped me knowing that you were going to videotape me, knowing that I would be able to watch what I did. I think I put more time into planning and thinking about my lessons because I knew they were going to be taped. That was a good thing for me. I realized I could learn by watching what I was doing (exit interview, December 9, 2008).

Austin’s final remark, “I realized I could learn by watching what I was doing” (exit interview, December 9, 2008) emphasizes the importance of being videotaped. He recognized that he could learn about his practice by viewing his teaching on video. Further, Austin stated that he put more time into planning and thinking about his lesson because he was going to be videotaped.

Viewing One’s Lesson

Viewing one’s practice, the second process, enabled participants to relive their teaching experiences, rather than rely on memory or verbal feedback. This is important because one’s recollections of events may not accurately portray what took place while oral communication may be misunderstood or misinterpreted. Researchers have asserted that analysis and self-observation of one’s own teaching practice are advantageous activities (Berg & Smith, 1996; Harford & MacRuaire 2008; Rich & Hannafin, 2008;
Sherin, 2000; Sherin & Han, 2004; Sherin & van Es, 2005; van Es & Sherin, 2008; Wang & Hartley, 2003).

After being videotaped, the participant and I viewed the videotaped lesson immediately after the taping. The first and second times the participants viewed their lesson I sat next to them, recorded my noticings, talked with them about their noticings as well as my own. The third time the participants viewed their lessons I sat a nearby desk while the participants independently viewed their videos and recorded noticings.

I found that my participation as a guide as well as sharing my noticings during the first and second video viewings was helpful to the participants. For example, Chloe only listed four noticings after viewing her first lesson. I shared my noticings with her after she talked about what she noticed. At one point during our discussion of my noticings Chloe replied, “Hmm, I didn’t even pick up on that when I watched the video” (transcript, October 9, 2008). My sharing of different noticings helped Chloe become more aware of different classroom events during her second and third viewings where she recorded six and eight noticings respectively.

In addition, sharing noticings prompted conversations about teaching with the participants. For example, Cameron mentioned that some students “would kind of look up and didn’t follow along in the pages, didn’t read along with us” (transcript, October 16, 2008) during a whole class read aloud. He proceeded to express his concerns that students weren’t paying attention because their eyes were not focused on the pages of the book. I asked Cameron, “Do you read articles or any kind of text in Dr. Crimson’s [professor] class? As a whole class, during class time?” (transcript, October 16, 2008).
He replied, “Yeah, we do read, it’s mostly guided. She mostly reads, we don’t ever read” (transcript, October 16, 2009). I then asked him what he does when Dr. Crimson is reading and he replied, “I try to find where it is in the thing so that I can follow along” (transcript, October 16, 2008). This prompted me to ask, “Do you follow along, word by word, for the whole time she is reading?” (transcript, October 16, 2008). Cameron admitted that he did not always have his eyes on the text yet would still listen to what Dr. Crimson was saying.

I then talked with Cameron about the difference between monitoring students’ behavior and student comprehension. I stated, “We may see students with their heads in the book, it looks like they’re following along, they may or may not be” (transcript, October 16, 2008). Our discussion continued and I said, “Having students look for something while they are reading, place a sticky note at a certain part, create a drawing about what the reading means, that will help you know what students are doing and if they are reading” (transcript, October 16, 2008). Cameron replied, “So, when I had the students use the note cards for the second reading, that’s the evidence for comprehension rather then if their eyes were in the book” (transcript, October 16, 2008).

I found that it was important for me to view the participants’ lessons and record and share my noticings while the participants viewed their lessons because it enabled me to share additional noticings. This prompted the participants to become aware of different classroom aspects during future viewings. In addition, the participants and I engaged in discussions about their teaching as a result of viewing their lesson and recording noticings.
Viewing one’s lesson had a profound impact on each of the participants for three reasons. All 4 participants stated that having the opportunity to watch the videotaped lesson on their own prior to viewing it with others was helpful in developing an inquiry-oriented approach because (a) they were able to recall the lesson easily, (b) it enhanced their ability to be open-minded during subsequent video club meetings, and (c) it enhanced their ability to notice classroom events.

First, viewing one’s own lesson immediately following the videotaping was helpful to participants because they were able to clearly remember the lesson they just taught. Chloe stated:

I think it was the most helpful just because it’s fresh in your mind. I don’t think I’d remember the details clearly if I had to wait 3 days; it was helpful to sit down and watch it right after because you knew exactly how the lesson was supposed to go. (exit interview, December 8, 2008)

The participants taught several lessons a week yet were only videotaped once a week. Being able to initiate their investigation, through the process of viewing their lesson, immediately after they taught the lesson helped the participants easily recall the experience.

Second, watching their own lesson prepared them for when others would view their lesson during the video club meetings. Austin commented, “I liked watching myself because I could actually see what I was doing first, so I could kind of prepare myself for what other people might notice because other peoples’ opinions are helpful” (exit interview, December 9, 2008). Austin also saw value in his peers’ ideas, stating, “I think
it helped me to be more open to suggestions, so I could say, ‘OK, yeah, I didn’t do this well,’ and they’re going to do is try to help me by noticing different things” (exit interview, December 9, 2008). For Austin, watching his lesson aided in his ability to investigate his teaching because he viewed it as an opportunity to recognize things he didn’t do well, his moments of uncertainty about his teaching. Austin also recognized how watching himself aided in his ability to study and think about his practice. He explained, “At first I thought that I wouldn’t like watching myself on the camera but as time has progressed I have become comfortable and it’s helping me improve my teaching in so many ways” (exit slip, November 19, 2008). In addition, it was during this process that he recognized the importance of collaboration. Austin’s peers would also see what he didn’t do well; however, this was necessary in order for them to help him learn how to teach.

Third, the participants received instant, visual feedback by viewing their own lesson. They were able to relive their lesson and record their noticings instead of relying solely on verbal feedback from their mentor teacher or professor. This helped participants enhance their observation skills. Cameron noted the importance of watching his own lesson by stating, “I’m able to notice things while I’m teaching but then I’m able to notice different things that I couldn’t possibly have been able to while I was teaching” (exit slip, November 12, 2008). Thus, viewing his own lesson aided Cameron’s development to notice classroom events he may have overlooked while teaching. In addition, Victoria wrote, “Watching my lesson right after I taught meant I didn’t have to just replay the lesson in my mind because I got to see it for myself” (exit slip, November
12, 2008). She continued, “It also gave me the chance to get better at noticing different things and the more times I was able to watch myself and others, the better” (exit slip, November 12, 2008). Enhancing preservice teachers’ ability to notice classroom events is an important skill when investigating one’s teaching and viewing one’s lesson helped to develop this skill.

Schon (1987) contended that teachers take part in reflection-in-action and reflection-on-action. Reflection-in-action takes place during teaching while reflection-on-action occurs after teaching. I found that all participants engaged in reflection-on-action while they viewed their videotaped lessons. Participants took part in thinking about their prior teaching experiences as they viewed their video. In addition, participants also engaged in Dewey’s (1913/1966) form of reflection that requires one to study his/her practice in order to improve it. Viewing lessons allowed participants to begin investigating their practice because they began to notice different aspects about their teaching as well as classroom events.

Selecting Video Clips, Providing Rationales, and Crafting Questions

The processes of selecting video clips, providing rationales, and crafting questions occurred after the participants viewed their lesson. I instructed the participants to begin by selecting a clip, providing a rationale for selecting the clip, and then formulating a question pertaining to the clip. However, these processes did not always take place in that exact sequence. For example, I guided Victoria through the processes and began by selecting clips after viewing her first videotaped lesson. She then proceeded to explain why she selected those clips and then we crafted her questions. After Victoria viewed her
second lesson, she began by stating her questions, selected clips that illustrated her questions, and then talked about why she wanted to examine those particular moments of her teaching. I linked these three processes together because I found that the order in which they took place was not necessarily relevant; however, all three processes needed to take place after viewing one’s lesson and before the video club meeting. In addition, data analysis revealed that these three processes were necessary in order for the participants to develop their ability to investigate their teaching and engage in different types of reflective thinking.

I worked closely with the participants the first time they selected video clips, talking them through the process of how to select clips and provide a rationale for choosing the clips as well as form questions. The participants took the lead during the second clip selection process. Although I was present to assist and guide them, it was evident that they were more familiar with the process because they were able to discuss their clip selections, provide rationales, and craft good questions. By the third time they selected a clip for the video club, the 4 participants independently selected clips, provided rationales, and crafted questions.

My involvement in these processes diminished when participants were able to complete the processes on their own. For example, during Chloe’s first session she mentioned she noticed that, “I kind of helped them work through their thinking process” (transcript, October 9, 2009). I asked her to talk more about her noticing and she replied, “Well, after seeing it and thinking about, I didn’t help them enough. I need to do something to see whether or not they understand my directions” (transcript, October 9,
2008). She continued, “It’s hard too because we’ve done some of this before, they know it and then no one knows it” (transcript, October 9, 2008). I recognized Chloe’s uncertainty and frustration about the situation and helped her think through her problem by asking her to turn her problem into a question and she stated, “Something to do with introducing, prefacing a lesson…I’m not sure” (transcript, October 9, 2008). I suggested she take some time to think about it rather than offer her my suggestion for a question. After a few minutes Chloe stated, “How about something to do with making sure they [the students] all understand the content before we try using it and talking about it. Something to do with making sure my directions are clear” (transcript, October 9, 2008).

We then modified her thoughts and crafted questions together based on Chloe’s original uncertainties. Chloe was able to recognize her uncertainties more clearly during her second session yet we talked through her thought process. Chloe independently selected clips, provided rationales, and formed questions during her third session and we discussed her decisions after she completed those three processes. This finding is significant because it illustrates the importance of modeling as well as this participant’s gradual development to independently engage in the processes of selecting clips, providing rationales, and formulating questions.

I also found that the processes of selecting a clip, providing a rationale, and asking questions encouraged these participants to engage in reflection-on-action (Schon) and reflection in order to investigate teaching (Dewey). Participants engaged in reflection-on-action when they recalled and talked about their prior teaching events. Discussing these prior teaching events helped them remember moments of uncertainty as
well as instances of success. In addition, reflecting-on-action encouraged participants to engage in discussions about their practice.

The participants took also part in reflection in order to investigate teaching by discussing uncertainties and forming questions about problems related to their practice. Participants used this problem-based approach in order to study and to enhance their practice. I found that all participants engaged in this type of reflective thinking during the processes of selecting a clip, providing a rationale, and asking crafting questions. Austin, Cameron, Chloe, and Victoria each expressed uncertainty about some aspect of their teaching after they viewed their videotaped lesson. They selected video clips that showed these uncertainties in order to collaborate with their peers and think more deeply about their uncertainty. This uncertainty also encouraged them to create a question about that particular moment and thus became part of their investigation into their own teaching. For example, Chloe selected clips from her lesson where she introduced the simple and complete predicates during her first clip selection session. She chose clips that showed her instruction of the topics and subsequent directions for a follow-up activity. Chloe selected the clips because, “I don’t feel my explanations were clear enough and I’d like to learn how I can improve on this. I looked for a part that I thought needed improvement” (exit slip, October 9, 2008).

Chloe’s uncertainty about her directions encouraged her to engage in reflective thinking as a way to investigate this aspect of her teaching. Chloe was able to provide a rationale for selecting her clips and form questions about her practice as a result of her reflection. She established a foundation for investigating her practice by asking questions
about her practice as well as engaged in Dewey’s interpretation of reflective thinking.

Table 7 presents a sample of the questions participants crafted about their practice. These questions illustrate their participation in reflection as a way to investigate their teaching.

Table 7  

*Participants’ Questions about their Teaching*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Question</th>
</tr>
</thead>
</table>
| Chloe       | How can I make sure students understand what I’m explaining before we start an activity?  
How can I be sure that all the students are following along and are catching on what we are going over in class?  
What could have been improved?  
Do you think they understand what a summary is and how to write one after this lesson? How do you know this? |
| Austin      | Do I relay accurate knowledge?  
Were directions easy to understand? Why or why not?  
What other types of activities could I have included to help reinforce the concepts? |
| Cameron     | Am I checking for student comprehension?  
Am I teaching effectively?  
Am I using what we have already discussed in our sessions or in class? |

*(table continues)*
Table 7 (continued)

Participants’ Questions about their Teaching

<table>
<thead>
<tr>
<th>Participant</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameron</td>
<td>Were my directions clear? Why or why not?</td>
</tr>
<tr>
<td>Victoria</td>
<td>How do I engage and encourage student who are reluctant to participate?</td>
</tr>
<tr>
<td></td>
<td>Are my directions clear?</td>
</tr>
<tr>
<td></td>
<td>Do I present the content in a way that is understandable?</td>
</tr>
</tbody>
</table>

In choosing what portion of their lesson to share, I found that participants offered four reasons to support their selections. I classified these four intentions for selecting clips into the categories of (a) receive help (b) good teaching (c) give directions, and (d) show growth. The first intention, ‘receive help,’ pertains to instances where participants selected clips in order to receive feedback and assistance from their peers regarding specific moments of their teaching. The second intention, ‘good teaching,’ refers to selections made so as to share moments of good teaching with others. The third intention, ‘give directions,’ applies to clips selected with the aim of receiving feedback on their ability to give directions. The fourth intention, ‘show growth,’ denotes clip selected to show personal growth from one lesson to another. I found that the participants’ different rationales for selecting clips played a role in studying their teaching because it determined the focus for their investigation. In addition, I found that having participants provide a rationale for their clip selection helped them reflect on, recognize, and describe
their moments of uncertainty. Table 8 presents explanations of the participants’ four rationales for selecting video clips. Following these definitions, Table 9 presents a summary of each participant’s rationales for selecting their clips.

Table 8

Explanation of Participants Four Rationales for Selecting Video Clips

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>receive help</td>
<td>“I’m not very strong in science and the other three all have science as one of their concentration areas. I’d like them to watch the clips to see if I’m teaching the content accurately and if they have any feedback for me” (Austin, transcript, December 2, 2008).</td>
</tr>
<tr>
<td>good teaching</td>
<td>“I picked the clip about summaries because I think I did a good job with the lesson overall. I think I asked the right questions and got the students thinking in the right direction. I’d them to watch this and see what they think” (Chloe, exit slip, October 27, 2008).</td>
</tr>
<tr>
<td>give directions</td>
<td>“I think my directions are clear yet would like to continue to work on this and have others watch this clip” (Victoria, fieldnotes, November 18, 2008).</td>
</tr>
<tr>
<td>show growth</td>
<td>“I like the way that I looked up as we read together. I found that I was more able to see that they were at least looking at their</td>
</tr>
</tbody>
</table>

(table continues)
Table 8 (continued)

*Explanation of Participants Four Rationales for Selecting Video Clips*

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>show growth</td>
<td>books while we read aloud. I want others to see that I didn’t sit there, with my nose in my book, the whole time” (Cameron, transcript, October 16, 2008).</td>
</tr>
</tbody>
</table>

Table 9

*Participants’ Rationales for Selecting Video Clips*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Session One</th>
<th>Session Two</th>
<th>Session Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloe</td>
<td>give directions</td>
<td>receive help</td>
<td>good teaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>receive help</td>
</tr>
<tr>
<td>Cameron</td>
<td>good teaching</td>
<td>show growth</td>
<td>give directions</td>
</tr>
<tr>
<td></td>
<td>receive help</td>
<td>receive help</td>
<td></td>
</tr>
<tr>
<td></td>
<td>give directions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victoria</td>
<td>receive help</td>
<td>give directions</td>
<td>receive help</td>
</tr>
<tr>
<td>Austin</td>
<td>receive help</td>
<td>give directions</td>
<td>receive help</td>
</tr>
</tbody>
</table>
Selecting Clips to Receive Help. To begin, all participants stated that they wanted to show their clips in order to receive feedback and assistance from their peers. For example, Chloe was interested in receiving feedback on a particular lesson, so she selected portions of lessons where she introduced a new topic. She selected these clips because she wanted the other participants to provide her with insights on how to improve her practice when approaching an unfamiliar topic with her students. Austin selected clips that would give him feedback on the subject content and delivery since “Science is not one of my concentration areas” (transcript, December 2, 2008). He was concerned about the extent to which his weakness in science would be obvious.

Their rationales illustrate the desire to improve their practice by showing their peers moments of uncertainty in their teaching. It appears that their intention was to bring forth these moments in order to discuss and collaborate with peers to gain different perspectives and resolutions to their questions and concerns. Table 10 represents the participants’ questions related to the purpose of receiving feedback by sharing moments of uncertainty with peers.
### Table 10

*Participants’ Questions Related to Receiving Help from Peers*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Session</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloe</td>
<td>2</td>
<td>“How could I have introduced the topic in a more effective way?” “How can I be sure that all the students are following along and are catching on to what we are going over in class?” (exit slip, October 16, 2008)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>“What could have been improved? Is it better that I read the chapter out loud to them or should I have let them read it on their own? Do you think they understand what a summary is and how to write one after this lesson? How do you know that?” (fieldnotes, October 23, 2008)</td>
</tr>
<tr>
<td>Austin</td>
<td>1</td>
<td>How do I check for student comprehension?</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>“Do I relay accurate knowledge?” “I’d just like to talk about the hook and how that led into the lesson and see what the others notice” (fieldnotes, December 2, 2008)</td>
</tr>
<tr>
<td>Victoria</td>
<td>1</td>
<td>How to engage and encourage students who are reluctant to participate. “My other question, it had to do with when I was going around working with the students individually.</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 10 (continued)

*Participants’ Questions Related to Receiving Help from Peers*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Session</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t get to Connie until probably 10 minutes later, which wasn’t good, she got through it but had the decimal wrong. I’d like us to talk about this situation” (fieldnotes, November 11, 2008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Feedback on how a particular situation was handled.</td>
<td></td>
</tr>
<tr>
<td>Cameron</td>
<td>1</td>
<td>“How am I checking for students’ comprehension?</td>
</tr>
<tr>
<td>2</td>
<td>“How am I seeing the students’ thinking? Am I teaching effectively? Am I using what we have already discussed in our sessions or in class?” (fieldnotes, October 16, 2008)</td>
<td></td>
</tr>
</tbody>
</table>

*Selecting Clips to Share Good Teaching.* Participants also selected clips in order to share what they considered portions of lessons that went well in order for their peers to witness these successes. For example, Cameron selected what he considered good teaching during his first video clip selection session. He stated that the opening of his lesson was “very effective” (fieldnotes, October 9, 2008) and that he wanted to share this with his peers. Cameron’s questions about the clip also portrayed a desire to seek reassurance that his opinions about the opening of the lesson were as effective as he
thought. He wanted “honest opinions on [the] overall quality of [his] teaching” (fieldnotes, October 9, 2008). Cameron sought support while also being open to his peers’ insights. Similarly, Chloe selected video clips that illustrated good teaching during her third video clip selection session. She selected a clip about writing summaries because she thought she “did a good job” (exit slip, October 27, 2008). Chloe displayed openness to others’ suggestions and ideas despite choosing clips that portrayed good teaching. Her questions about the clip included asking how she could have improved the lesson, the effectiveness of reading aloud versus silently, and student comprehension of the lesson. These questions illustrated her authenticity and desire to improve her teaching.

Table 11 represents the questions pertaining to clips of good teaching.

Table 11

Participants’ Questions Related to Good Teaching

<table>
<thead>
<tr>
<th>Participant</th>
<th>Session</th>
<th>Question</th>
</tr>
</thead>
</table>
| Cameron     | 1       | “Honest opinions on overall quality of teaching.”  
            |         | (fieldnotes, October 9, 2009) |
| Chloe       | 3       | “What could have been improved? Is it better that I read the chapter out loud to them or should I have let them read it on their own? Do you think they understand what a |

(table continues)
Table 11 (continued)

Participants’ Questions Related to Good Teaching

<table>
<thead>
<tr>
<th>Participant</th>
<th>Session</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloe</td>
<td>3</td>
<td>summary is and how to write one after this lesson? How do you know that?” (fieldnotes, October 23, 2008)</td>
</tr>
</tbody>
</table>

Selecting Clips about Giving Directions. Interestingly, all 4 participants selected clips in order to receive feedback regarding their ability to give clear directions. All of these participants chose to investigate this aspect of their practice because each displayed uncertainty about their ability to give clear directions because of what they noticed while viewing one of their lessons. For example, Austin selected clips from a math lesson where students were to plot decimals on a number line. He began by showing all the students how to plot decimals by using a whiteboard; students then worked individually to plot decimals on their own whiteboard. Austin wanted to know whether his directions were clear and why or why not. Austin’s search for evidence displays his desire to use evidence to support judgments. In addition, Victoria selected a clip based on her desire to receive assistance and feedback with respect to giving directions. She stated, “I think my directions are clear yet would like to continue to work on this and have others watch this clip” (fieldnotes, November 18, 2008). Cameron and Chloe also sought help related to
their ability to give clear directions. Table 12 represents the questions pertaining to their selected video clips.

Table 12

<table>
<thead>
<tr>
<th>Participant</th>
<th>Session</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloe</td>
<td>1</td>
<td>“How can I be sure students understand what I’m explaining before we start an activity? Simply explaining it may not be enough. How can I be sure? Were my directions clear?” (fieldnotes, October 9, 2008)</td>
</tr>
<tr>
<td>Cameron</td>
<td>1</td>
<td>“These were clear directions but how do I know they were clear?” (fieldnotes, October 9, 2008)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Were my directions clear? Why or why not? How could they be improved?</td>
</tr>
<tr>
<td>Austin</td>
<td>2</td>
<td>Are my directions clear? Why or why not?</td>
</tr>
<tr>
<td>Victoria</td>
<td>2</td>
<td>Are my directions clear?</td>
</tr>
</tbody>
</table>

Selecting Clips to Show Growth. In addition, one participant, Cameron, selected clips in order to show growth that he believed he displayed in his teaching. Cameron’s first videotaped lesson included a whole class read aloud section. Cameron sat at the front of the room and followed along in his book during the entire read aloud section; he never
looked up from his book, and he remained seated the entire time. Cameron did not select any clips from his lesson that illustrated these actions; however, after his first video clip selection session we discussed how he sat at the front of the room and failed to monitor students. Cameron’s second lesson also included a brief read aloud section, and he selected a video clip of the read aloud section because, “I liked the way that I looked up as we read together. I found that I was more able to see that they were at least looking at their books while we read aloud” (transcript, October 16, 2008). He continued, “I want others to see that I didn’t sit there, with my nose in my book, the whole time” (transcript, October 16, 2008). It was important for Cameron to illustrate that he had taken what we discussed and applied this new knowledge to subsequent teaching; of equal importance was that he shared this with his peers.

Participants engaged in selecting clips, providing rationales for their selections, and crafting questions about their practice in order to investigate and reflect on their teaching. The participants selected video clips of their teaching to receive feedback from their peers, to share what they deemed examples of good teaching, to receive feedback specifically about their ability to give directions, and to illustrate their growth from one lesson to the next. These participants’ rationales for selecting clips assisted in their ability to reflect on and describe their uncertainties about their teaching. In addition, providing rationales provided the participants with a focus for their investigation because it helped them craft questions about the uncertainties regarding their teaching. The participants’ questions about their selected clips show the desire to seek advice and suggestions from peers, the ability to gather evidence to support their judgments, and curiosity about their
teaching. All participants were able to ask questions about their teaching which led into
an investigation of their practice, despite the different intentions for selecting video clips.

*Video Club Meetings*

The participants and I met every Wednesday morning in the form of a video club
in order to view videotaped lessons, record and discuss noticings, seek solutions to
questions, and reflect on their practice. Video clubs consists of small groups of teachers
who videotape themselves teaching lessons and meet as a group to discuss and analyze
one another’s teaching (Sherin, 2000). In addition, participants also responded to exit
slips immediately after the first 2 meetings. Subsequently, exit slips were sent via email
the day after video club meetings. Video club meetings contributed to the participants’
ability to develop an inquiry-oriented approach to their teaching and learning as well as
encourage reflective thinking in different ways.

By taking part in video club meetings, all participants were part of the learning
process in either receiving or giving feedback. This collaborative effort exposes
participants to new ideas and ways of thinking as well as to receive support when making
decisions about their practice. Participants who were videotaped had to prepare for the
discussion by selecting a clip to show and provide appropriate questions. The other
participants had to understand the process of observing a lesson and sharing important
noticings, thus making each participant responsible for continued growth. The
involvement of all was important because it served as the impetus for discussions and
catalyst for emerging questions about teaching as well as a stimulus for reflective
thinking.
Data analysis revealed that it took a few weeks for the participants to build trust and feel comfortable to mention noticings that highlighted other participants’ mistakes or weaknesses in their teaching. However, the participants developed trusting relationships throughout the 16 week study that enabled them to feel more at ease when sharing noticings and discussing others’ teaching. For example, Victoria commented, “At the beginning it was definitely harder to say anything cause you didn’t really know each other and not really sure how others will take it, so that was probably a challenge” (transcript, December 9, 2008). Victoria went on to say, “It became easier over the semester because you get to know each other a lot better” (transcript, December 9, 2008). Chloe stated, “At first it was difficult just because we didn’t want to offend anyone but once we got down to it we all realized that that was the point of it, was to say things that worked or didn’t” (transcript, December 8, 2008). In addition, Cameron noted, “I think something that helped us was how you [the researcher] stressed the connotation of the noticing, ‘this is what I noticed.’ And this may be good or not so good, but it’s what I noticed, now let’s talk about it” (transcript, December 8, 2009). Building trusting relationships among the participants was important in order for them to feel comfortable to participate and provide honest responses.

In addition, I found that participants began to recognize the importance and benefits of collaborating with their peers. For example, Victoria explained:

I really appreciate being able to take what I/others noticed about a lesson and then brainstorm ideas of how to address or improve upon specific concerns. Listening
to what others have to say gives you new ideas and opens you up to things that you never thought about/noticed on your own. (exit slip, November 12, 2008)

While Austin stated, “I think working with them [peers] was helpful because I could see things that they were doing that I would want to do” (transcript, December 9, 2008). Over time, the participants developed an appreciation for the advantages of collaboration that helped them build relationships with their peers in the video club.

Participants’ noticings were recorded on large chart paper during each video club meeting. I found that recording their noticings was important because it helped both the participants and me see the types of activities and interactions they observed over the course of the meetings. For example, Chloe commented, “I think it is beneficial to chart all of our findings because we can see them and come back to them” (exit slip, November 12, 2008). She continued, “If we just talked about everything and let it go, it would be harder to remember everything that we’ve gotten out of the video club” (exit slip, November 12, 2008). Writing their noticings on chart paper helped the participants organize their thoughts, which was used as reference points during discussions.

The participants’ ability to notice and discuss a larger variety of classroom events developed over the course of the seven meetings. During the first two meetings, I needed to model and scaffold by providing my noticings, especially when silence ensued, and by asking follow-up or probing questions. The remaining five meetings required less guidance because the participants developed an ability to notice more of what was occurring in the classroom, and were more adept at discussing these noticings by suggesting possible solutions with little or no prompting by me. For example, I
participated 75 times during the first video club meeting. My participation consisted of reminding the participants to introduce their clips in order to provide context, asking participants what they noticed, offering my noticings after participants were only able to mention a few noticings, asking probing questions to acquire more details, facilitating discussions, and helping participants locate solutions to questions.

My participation in the second meeting decreased to 64 and then down to 56 times during the third meeting. I continued to elicit and offer noticings as well as ask probing questions during these meetings. I participated fewer times during the fourth through seventh meetings where the number of times I participated was 39, 28, 38, and 26 respectively. I offered advice and asked probing questions pertaining to pedagogical issues that arose during all seven meetings. Figures 2, 3, and 4 present excerpts from three conversations from the first video club meeting, which illustrates a higher level of participation on my part. In addition, the excerpts portray the participants’ attempts to engage in an inquiry-oriented approach as well as reflective thinking about their practice.

Cameron: I noticed that my instructions are clear.
Researcher: When you say you thought the instructions were clear, what did you notice to support that?
Cameron: Would the evidence that they’re all writing—that a majority of them are writing—is that evidence?
Chloe: Well, they could be scribbling or writing “I hate this!”
Cameron: Huh, I didn’t think about that.
Researcher: So, how could you check? Yes, you’re right. They are all writing. What are they writing?
Cameron: That I don’t know. I could walk around and check, collect their work, talk with them.

Figure 2. First excerpt of conversation from first video club meeting.

The first excerpt from this conversation illustrates Cameron’s nascent ability to use evidence to support his noticing. Although he noticed that students were writing, he was unable describe students’ writing in detail. Cameron recognized that he was unable to provide substantial evidence to support his claim; however, he was able to suggest specific actions he could take in the future (talk with students, read their work).

Researcher: Chloe, your questions about the clips were about whether or not your directions were clear, whether or not students understood the content. You focused on simple and complete predicate. What did you notice that could help answer your question?

Chloe: I had some students write on the overhead and was looking at the answers they gave.

(pause)

Researcher: Ok, what about the other students?

(pause)

Researcher: If Austin went up to the overhead and was able to verbally reply and Victoria was at the overhead but Cameron wasn’t able to make it to the overhead, how do I know Cameron understands? What do I know about Cameron’s thinking?

Chloe: You only know, for sure, about some of the students.

Victoria: Maybe have each student make up their own sentences.

Chloe: Start with a subject, write the predicate, and have them circle the simple and underline the complete. Then turn them in at the end . . . then you can see what they know.
Researcher: Good. Exactly. Thinking on your feet. . . . Sometimes you might not have something prepared and you don’t need to have something typed up. Have them do what you just stated, and then you have something that can show you their thinking. This way, you’re able to plan for the next lesson.

Figure 3. Second excerpt of conversation from first video club meeting.

The second excerpt demonstrates Chloe’s developing awareness of the need to reflect upon, investigate, and collaborate with others in order to answer her questions about her teaching. Chloe selected this clip because she was unsure about the clarity of her directions and her ability to gauge student comprehension. She was able to account for some students’ comprehension; however, I tried to help her extend her thinking by asking her about the other students. Victoria provided a possible solution, prompting Chloe to offer additional solutions. This conversation depicts the participants’ development as a group of peers discussing their teaching and working together.

Chloe: There was a point where the students shared their writing. And I noticed that after they shared their writing I said, “Ok, good. Next.” I wish I would have done more with them because they read them. I never really elaborated on them too much, and I think that, like, when I turn in a writing assignment or read my work, I want someone to talk about it or just do more than just read it and move on.

Researcher: That’s a good point. So you noticed something about the feedback you were giving the students. That could also be a question for the future, one to investigate. What kind of feedback do I give my students? And then look for evidence. So it sounds like you want to make an effort to give specific feedback or comment on a specific phrase or word a student used when they shared their work.

Chloe: Yeah, tell them what I think is good about it and why, spend more time
listening, and be able to say something specific about what they share.

Figure 4. Third excerpt of conversation from first video club meeting.

The third excerpt shows how Chloe noticed her lack of substantive feedback when responding to students. Her comments expressed the desire to receive feedback on her work in an attempt to relate to how her own students might feel when little or no feedback is given. In addition, Chloe was able to suggest how she might improve this aspect of her practice.

My involvement during the second video club meeting consisted of probing for deeper understanding and clarifying information after Chloe mentioned a significant noticing about a particular class activity, popcorn reading. According to the participants, popcorn reading takes place when the class reads some type of text aloud. One student is called on to begin reading aloud, stops whenever he or she wants, and then calls on another student to read. Chloe stated that she noticed some of the students followed along in their book during the popcorn reading, but others did not. She continued by saying, “But that doesn’t show that they [the students] understand what they’re reading. They could be daydreaming but have their eyes on the book, and we don’t know what they’re doing” (transcript, October 22, 2008). Chloe’s question and uncertainty regarding student comprehension initiated a discussion, lead by my questions, among the participants that illustrated their attempt to investigate an important aspect of their teaching. This discussion generated some possible solutions; however, it also left them with questions about reading comprehension, motivating them to continue to investigate and seek
solutions. Figure 5 presents the discussion that illustrates my role of leading the participants to clarify their thoughts, recognize the dilemma, and construct a question.

| Cameron: | I don’t know. You can’t see what they’re thinking when they read, but at least I know they’re looking in the right place to find the information. |
| Victoria: | Before the students read, having the note cards to give the students a purpose for reading—I think that was a good idea. |
| Chloe: | I don’t know. I just think, it’s not [that] it can’t be hard for some students to follow along. If you’re not a fluent reader, it’s hard. |
| Austin: | Did they get to pick who read or . . . ? |
| Chloe: | It’s popcorn reading |
| Cameron: | We do popcorn, and once they started picking the same kids again. |
| Researcher: | So you both noticed something about the popcorn reading. Chloe, you mentioned it might be difficult for students to follow along; and Cameron, you mentioned students calling on the same students. Talk about those. |
| Austin: | Could you also have time for small group? |
| Chloe: | That’s the same thing, though. |
| Cameron: | What about silent reading? |
| Chloe: | So, we should find different ways to have students read other than whole class read alouds. |
| Researcher: | Right. For the past two lessons it’s been having the whole class read aloud. |
| Chloe: | It’s a hard situation because I almost want the same kids to read all the time, the ones that are fluent and the ones that can do it. But we’ve got to call on the ones who aren’t as fluent. It’s hard for me to even follow along sometimes. You know? |
| Victoria: | What if you do a book on tape, sometimes? I know that doesn’t really get at what you’re saying, but— |
| Austin: | It’s a different way. |
Cameron: Wouldn’t that be the same as us reading? The lesson plan the way it is, there has to be students reading silently, students reading aloud, and the teacher reading aloud.

Researcher: Is that a requirement for each lesson?

Cameron: Well, no. One of the best things I’ve seen teachers do is pull the desks out of the middle and arrange the seats into a circle so that you are reading to the center of the circle and you go around the circle to read. If I know this is going to be my paragraph here, you could read through that paragraph one time before it’s your turn. You know what I mean? And . . . and I don’t know if that rings true with you [looks to researcher], but Dr. Beach [professor] says that she hates popcorn reading.

Researcher: OK. If Dr. Beach doesn’t like popcorn reading, why are you still doing that?

Cameron: Because that’s what the kids are used to. The kids seem to like it.

Researcher: Is that a good reason to continue using it?

Cameron: Well, no, not really.

Researcher: I’m asking because Chloe brought up a good point. She has a good question about how to approach reading in the classroom. We saw popcorn reading being used. You stated that Dr. Beach is not a fan of popcorn reading. I’m just wondering why it’s still being used.

Cameron: Everyone has in their lesson plans to use popcorn reading. Last week I used circular reading on my own. I’m going try that circle thing. I like that.

Researcher: Chloe, you brought up a good question, it’s something for all of us to keep thinking about. Now that we have this question, what are alternatives to popcorn reading, how might you go about finding answers?

Chloe: I’m definitely going to talk to Dr. Beach and maybe or Mrs. Brown about it.

Figure 5. Discussion from second video club meeting about popcorn reading.

Participants were able to state and discuss their noticings independently during the third and fourth video club meetings. Thus, my role became one of facilitator and
guide instead of leading the discussion. For example, after watching Chloe’s video clips, Austin stated, “I noticed that you wrote on the board again. I think that was helpful because you [Chloe] modeled the process and asked for their [the students’] ideas, but when it came time to write the summary on their own, they [the students] could see it; and it helped the kids who were having trouble getting their thoughts on paper” (transcript, October 29, 2008). Austin continued by mentioning the types of questions Chloe asked (what do you think? why? why not? how do you know?) during the clips. Cameron and Victoria joined the discussion by stating their noticings regarding how Chloe modeled the process of writing. Austin’s noticings about Cameron’s clips generated a discussion about the sequence of events that took place during his lesson in the fourth video club meeting. Austin noticed that Cameron asked students to volunteer prior to introducing the activity and giving directions. His noticing prompted Cameron to reply:

You know, that sequence probably made sense at the time, but now that you mention it and the more I think about it, I probably should have given everyone a copy to look at so that they knew, so that they could look at it beforehand, then gave the introduction, then picked volunteers, then gave directions. (transcript, November 5, 2008)

The participants continued to discuss the order of events in Cameron’s lesson and offer him suggestions. My role as a facilitator gradually decreased as participants were able to more independently discuss teaching; however, I continued to model, scaffold, and facilitate when necessary.
The remaining three video club meetings differed from the first four meetings in two ways. To begin, 2 different participants, Victoria and Austin, shared their clips. Victoria and Austin had the advantage of watching and learning as Chloe and Cameron went through the process of sharing their clips and the overall format of the video club meetings. Although Austin initially expressed some anxiety about sharing his clip, he admitted, “Being able to see how [Chloe and Cameron] went through the process helped prepare me for when it was my turn” (exit interview, December 9, 2008). Their familiarity with the process along with clearer expectations helped establish a routine for the meetings.

Second, more in-depth discussions about teaching occurred. Deeper conversations regarding their practice took place during these meetings. For example, Victoria had a question about her video clip pertaining to both student participation and student comprehension. The following excerpts from their conversation illustrate how Chloe’s noticing initiated a discussion about Victoria’s question. This discussion led to possible solutions as well as displayed how Victoria had opened an investigation of her problem by discussing her dilemma with a professor. Figure 6 presents the beginning of the discussion in which the problem was revealed.

<table>
<thead>
<tr>
<th>Chloe:</th>
<th>I noticed that last girl who tried to come up and plot points on the line and she had it wrong.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoria:</td>
<td>I really can’t get her to participate unless I specifically call on her. Usually I’ll try and call on her and give her something I know she can answer, but I didn’t really know where she was at with plotting the number; so I had her come up and do it. I don’t know if I should have gone to Connie that fast. I should have</td>
</tr>
</tbody>
</table>
probably waited a little bit,
but at that point she just turned around and wasn’t even listening.
Cameron: Oh, after she made the mistake, she shut down?
Victoria: I hate just calling on her because, but it’s the only way that I know . . . should I try . . . . That’s the only way I’ve been able to get her to talk, and I didn’t know where she was at; so it probably wasn’t the best way to do it, but I don’t know what else to do.

_Figure 6._ Beginning of conversation among participants regarding Victoria’s questions.

The participants then engaged in a discussion in an attempt to find solutions to Victoria’s question regarding student participation and comprehension. Figure 7 shows the participants’ discussion of possible solutions for Victoria.

| Austin: Do you think the buddy system would work with her? If you give her a buddy and say, “You have to share one thing and you have to share one thing. You can come up with them together, but both of you have to talk.” I don’t know, maybe that would work, especially in small groups. |
| Victoria: She probably struggled the most with this concept. |
| Cameron: I think you did the right thing, though, because you have to know whether or not she’s able to do it. You have to know where she’s at, and there’s no way to do that other than to have her show what she’s thinking. |
| Chloe: I agree with what you said, though, about maybe not moving on so fast. Maybe work her through it, just giving her a chance to work through it rather than moving on |
| Cameron: Is there a reason she doesn’t participate? Does she just not have the right answers, or… |
| Victoria: She struggles more than all of the rest of them and I don’t know if that has something to do with it but, I mean, I tried to give her questions that I know |
Victoria remained uncertain about her questions. Figure 8 displays Victoria’s efforts to seek solutions to her queries.

Victoria: Well, that’s the other thing. Those two boys at the end, I just gave them an extra decimal because they knew what they were doing. They could plot them all, so I know that they get it; but I know that she doesn’t get it. I talked with Mrs. Branch [professor] after the lesson because the whole class has some problems understanding the number line and the decimals, and I wanted to find out what to do.

Austin: Because there is a concern about some misconceptions with the timeline concept and with decimals.

Victoria: We came up with some different ways to show the students the idea of the number line and decimals and fractions, so we’ll see next week.

Austin: OK, so you need to work on finding a way to work with this student more so that she’s able to understand this concept in order to build on it.

Victoria: Yeah, because she has to be able to understand this so we can build on this with other things. I don’t know.

Figure 8. Victoria revealed how she sought guidance.
Her final remark, “I don’t know” (transcript, November 12, 2008), led Austin to suggest that the participants should record this question on their list of emerging questions in order to continue to investigate.

Discussions about student comprehension also took place during the seventh video club meeting. Austin showed clips from his lesson on freshwater ecosystems. In particular, he began by showing a clip from the introduction of his lesson in which he brought in jar aquariums to represent small-scale ecosystems. Working in small groups, students were to record the living and nonliving things and the interactions that they noticed. He reminded the participants that science was not one of his concentration areas, nor did he feel science was a strong content area for him when he introduced his clip. He wanted the other participants—all of whom had science as one of their concentration areas—to take notice of the content he was teaching and how he delivered the content to the students. The participants’ noticings focused on both positive aspects and areas upon which the participants thought Austin might improve. For example, Victoria commented:

I noticed that you began the lesson by bringing in the live ecosystems for students to look at. That was a great idea because it’s real, something they can see in real time. Each small group has a real ecosystem right in front of them. (transcript, December 3, 2008)

Cameron stated, “The students actually had an ecosystem sitting at their desks. And you brought in one for each table; you didn’t pass around the room where they only have 10 seconds to look at it” (transcript, December 3, 2008).
One of Chloe’s noticings pertained to the content of Austin’s lesson. She said, “You said 70% of the earth is water, and that’s a huge percentage. You said, ‘Can you imagine how much that is?!’ I don’t know that they are able to understand that just by giving them a percentage” (transcript, December 3, 2008). Chloe continued by suggesting a possible alternative, which prompted Cameron to suggest another possible alternative.

The participants continued to discuss and collaborate in an attempt to help a peer as well as use what they noticed about Austin’s lesson to ask questions. Their conversation also provides another example of an emerging question the students had regarding student comprehension. Figure 9 presents the conversation between Cameron, Chloe, and Austin regarding Austin’s science lesson.

<table>
<thead>
<tr>
<th></th>
<th>You could, I don’t know, use a visual, a map or . . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameron</td>
<td>Maybe use graduated cylinders?</td>
</tr>
<tr>
<td>Chloe</td>
<td>Yeah, yeah, a different kind of visual to show them, something other than a picture in the book. The mini-ecosystem—that visual gave them a different perspective, a more concrete understanding than a picture in a book. I noticed students were excited, and they were having conversations about freshwater ecosystems.</td>
</tr>
<tr>
<td>Cameron</td>
<td>Like take a liter, pour 700 ml out, and say, “This is 70%.”</td>
</tr>
<tr>
<td>Chloe</td>
<td>Or even, I’m trying to think of a good way to show that . . . like, take a ball and paint 70% red and tell them all the red is the water, you know? Something like that to just show them, a visual.</td>
</tr>
<tr>
<td>Cameron</td>
<td>Yeah, that is a tough thing to grasp.</td>
</tr>
<tr>
<td>Austin</td>
<td>I didn’t even think of that.</td>
</tr>
<tr>
<td>Chloe</td>
<td>I think it was good, and then I noticed later when you asked them, they were able to answer 70%; but I just don’t know if they get what that means, you know? They could answer 70%, but do they get what 70% means?</td>
</tr>
</tbody>
</table>
Victoria: This goes along with our big question about students’ understanding content.

Cameron: Add this as another example to our chart.

Figure 9. Conversation illustrating participants’ use of noticings and their attempt to seek solutions.

These conversations illustrate the participants’ ability to use an inquiry-oriented approach to their teaching and learning as well as engage in reflective thinking. I found that participants viewed and recorded their noticings pertaining to Austin’s and Victoria’s lessons, used their noticings to help find solutions, thought about designing and enacting instruction, and engaged in discussions about uncertainties experienced by their peers to seek answers.

In addition, I found that discussions during video club sessions helped the participants’ ability to ask additional questions about their practice which were not formulated prior to the video club meeting. These questions emerged during conversations in the first four video club meetings. I helped the participants identify their questions during the initial two meetings; however, participants developed and displayed an ability to recognize independently ask their own questions, provide examples of situations that exemplified these questions, and state possible solutions during the remaining meetings. These questions surfaced during discussions as opposed to the questions the participants crafted prior to the meetings.

Participants drafted these additional questions on chart paper to record and organize their thoughts, and to list solutions they discovered. Time was allocated to discuss suggestions or solutions they found at the end of the fourth through seventh meetings. This finding pertaining to additional questions is important because they
display the participants’ growing ability to ask questions about their practice. The participants did not limit their investigations to the questions that were brought forth by the participant whose clip was being viewed and created prior to the meeting. Rather, they continued to develop additional questions through their conversations during video club meetings. In addition, the participants actively sought solutions to these additional questions. For example, the participants wanted to search for alternative reading strategies instead of using popcorn reading. The participants asked their professor and mentor teacher, as well as drew from their observations and prior experiences, to create a list of possible alternatives, such as silent reading, shared reading, and teacher read aloud.

Data analysis revealed that video club meetings also prompted students to engage in the Cartesian form of reflection—to enhance knowledge about oneself—by recalling prior school experiences as a way to relate to their current teaching dilemmas. I found that participants drew upon prior school events to think about how they influenced their learning experiences. Participants used this knowledge about themselves to offer insights regarding their existing teaching questions. For example, Chloe was reminded of a past experience as a student while the participants discussed the importance of the sequence of events in a lesson during the fourth video club meeting. Chloe stated:

I remember one time, I think it was like 3rd grade, my teacher asked for volunteers and we would all raise our hands and she would say – you don’t even know what you’re volunteering for, you could be volunteering to jump off a building – and we were like, scared to death, and put our hands down, but, like, I don’t know, I thought it was a good way to look at it, like, you have to know what you’re doing
before you volunteer for it. I don’t know, maybe you needed to talk more about the Readers Theater so they knew that that’s what they were volunteering for.

(transcript, November 5, 2008)

Cameron’s current teaching dilemma sparked Chloe’s memory about a related prior school experience. Chloe recalled and became aware of how she reacted when faced with a similar situation. In addition, her reflective thinking enabled her to make an informed suggestion based on her previous experience.

Participants also engaged in a discussion about how to engage reluctant speakers during this same meeting. They were discussing possible reasons for why some of the students seemed hesitant to participate. This discussion prompted Victoria to suggest that some of the students may hesitate to participate because they may be shy, not because they do not know the information. She went on to say, “I remember being quiet and shy in school and I didn’t always jump at the chance to give an answer because that’s just who I was” (transcript, November 5, 2008). Victoria displayed awareness about her shyness to provide a possible reason behind the current problem the participants were discussing.

Both Chloe and Victoria illustrated Descartes philosophy regarding reflection because both drew upon prior, relevant school experiences. Chloe and Victoria became attentive to and disclosed personal knowledge as a way to seek solutions about their practice. In addition, they used this information as a way to make sense of the situations and make decisions.
Participants also engaged in reflection-on-action (Schon), reflection-in-action (Schon) and reflection to investigate their practice (Dewey) during video club meetings. Data analysis revealed that the participants engaged in reflection-on-action and reflection to investigate their practice during discussions in video club meetings. In addition, I found that all of these forms of reflection took place during a discussion at one video club meeting. For example, Victoria shared clips about a science lesson that focused on animal biomes at the sixth video club meeting. One of Victoria’s clips focused on the part of the lesson where she gave the students directions for their project. Students were to apply their knowledge of biomes and animal adaptations by creating their own animals and writing about the features that allow it to survive in a particular biome. Victoria began the lesson by sharing an animal she created then gave the students directions. She then led the students in a brainstorm activity to help them begin the assignment. All participants engaged in reflection to investigate because they were discussing and asking questions about what they noticed from Victoria’s lesson. Victoria took part in reflection-on-action when she talks about the brainstorming part of the lesson. In addition, Victoria discloses how she engaged in reflection-in-action during the teaching of her lesson. Figure 10 presents an excerpt of the conversation that highlights these types of reflection.

<table>
<thead>
<tr>
<th>Austin:</th>
<th>You used the board to answer the questions that the class created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloe:</td>
<td>I noticed you gave them four different options for their project</td>
</tr>
<tr>
<td>Austin:</td>
<td>You used the ‘give me 5’ for attention</td>
</tr>
<tr>
<td>Chloe:</td>
<td>Yeah, to regroup them, I thought that was good it was a good way to get things back and you had them talk about their ideas with a buddy</td>
</tr>
<tr>
<td>Victoria:</td>
<td>I couldn’t think of a question to get them where I wanted them to go so I</td>
</tr>
</tbody>
</table>
kind of just did that on the fly
Cameron: How clear were your directions?
Victoria: Um
Cameron: Did the students understand?
Victoria: I think so. They got started after this, on a brainstorm sheet which had
definite space for the four key features of the animal and I hope, I mean,
they’ve got the sheets with the directions, too and they can put a check next
to each piece as they finish it. So, I guess we’ll see what we get back next
week.
Austin: And they had that sheet with the directions before you did the power point, I
noticed that.
Researcher: And what did you notice when they brainstormed?
Victoria: They were creating animals and picking which option they wanted to do and
were talking with the other students in their group about different features
and wrote those down and most had a name for their animal
Researcher: So, that goes back to Cameron’s questions as well as one of your questions
about your lesson.
Victoria: Well, yeah, so directions were clear

Figure 10. Conversation illustrating different types of reflection.

Victoria’s comment, “I couldn’t think of a question to get them where I wanted
them to go so I kind of just did that on the fly” (transcript, November 11, 2008) portrays
her ability to engage in reflection-in-action; she thought about her practice while she was
engaged in the act of teaching. Victoria demonstrated her ability to engage in reflection-on-action when she recalled the actions of the students during brainstorming session. She
was able to remember that students shared ideas by talking with other students and wrote
down ideas. Victoria was able to determine that her directions for the assignment were
clear by engaging in reflection-on-action. In addition, all the participants took part in
reflective thinking as a way to seek solutions to Victoria’s question regarding the clarity of her directions. The participants thought about what they observed when watching Victoria’s clips and used those noticings to make informed judgments.

Video club meetings gave participants the chance to develop the ability to investigate their practice and engage in reflective thinking because it gave these participants the chance to share noticings, engage in discussions about their teaching, share ideas about their practice, ask questions, receive feedback, and seek solutions about their teaching.

*Exit Slips*

Participants responded to exit slips immediately following the first two video club meetings (see Appendixes E and F) and via email a day or two after the remaining video club meetings (see Appendixes G, H, I, and J). The purpose of the exit slips was to ask the participants to reflect upon their experiences. While participants engaged in several processes that required them to interact with others, exit slips were completed individually. I found that exit slips helped participants articulate their thoughts about what they noticed, the questions they were having, and how their experience with videotape analysis and the video club aided in their ability to develop an inquiry-oriented approach to their teaching and learning. Responding to questions and statements on exit slips gave participants time and encouraged them to critically think about their practice. For example, participants asked me if exit slips could be done by means of email, rather than writing responses after meeting in the form of the video club, because they wanted more time to think about and sort through all of the information they had been discussing.
This shows that participants recognized the value of and need to have time to process information pertaining to their teaching and learning.

I found that Victoria and Austin’s responses to exit slips included recollections and expressions about experiences that demonstrate Schon’s (1978) theory regarding reflection-in-action. For example, Victoria wrote in an exit slip about a teaching experience when reflection-in-action took place. Victoria had students working individually on an activity related to placing decimals on the number line. She wrote, “I saw that most of the students were struggling with placing their decimal on the number line” (exit slip, November 12, 2008). She also wrote that she then brought the class together and told them, “Let’s try another one together because I think that we are all pretty much having the same problems” (exit slip, November 12, 2008). She further explained her thoughts and actions by writing:

I recognized that multiple students were not able to correctly place the decimals individually, so rather than move around to each one and inevitably leave some waiting or incorrectly placing the decimal, I brought all of the attention back to the front. From there, we were able to break it down step-by-step as a group and to correctly realize where the decimal was supposed to go (and to make connections with previous examples that we had done). This saved time and gave all of the students the help and feedback that they needed.” (exit slip, November 12, 2008)
In his exit slip, Austin also wrote about a teaching experience that illustrated his ability to engage in reflection-in-action. Austin’s detailed account of his experience illustrates how he thought about his practice while teaching. Austin wrote:

As I was teaching, I noticed that the students were struggling with the task. This was noticeable because there were multiple (probably half of the class) students with their hands raised waiting to ask questions. Most of the students understood the new material, but, when it was placed in a story problem context, they struggled. I know this because a majority of the questions that I answered were the story problems. At this point I thought that I had to change what I was doing. I then said that the worksheet was just for practice and we went through the answers. Then I did the problems that the students were struggling with on the board and, in my opinion, made the process more concrete. I showed them how to do the math problems step by step. I think that switching methods helped because it addressed similar problems that the students were having. I think it helped because I noticed that more students were willing to help on the board after a few problems were presented. I think that I could have used a little more planning time too so that I could be more creative with how I first taught the material. (exit slip, October 16, 2008).

Both Victoria and Austin wrote about teaching experiences that exemplify their ability to engage in reflection-in-action. This is important because the participants demonstrated their ability to recognize a problem, analyze options, and enact solutions while they were teaching. Further, both participants revealed their experiences while
engaging in reflection-on-action. This finding demonstrates that participating in one form of reflection (reflection-on-action) helped preservice teachers become more aware of their use of a different kind of reflection (reflection-in-action). This is significant because it may help them continue to recognize the importance of engaging in reflection as a way to enhance their teaching and learning.

I found that responding to exit slips also helped the participants engage in reflection-on-action. For example, participants were asked to talk about an ah-ha moment from one video club meeting. Austin responded by writing:

"The noticing that started to get me thinking during this meeting was that you have to be prepared and organized. There was a lot of time at the beginning of the lesson that was spent writing things on the board and organizing papers. Even though this was a short amount of time, it was significant for me to notice that the students were losing interest and focus. It is just a small thing that I noticed but definitely an eye opener." (exit slip, October 29, 2008)

Austin’s ah-ha moment illustrates the importance of the reflection. By taking time to think about his teaching, he was able to locate, describe, make connections, and understand an important moment during the meeting where he learned about teaching.

Responding to exit slips did encourage these participants to engage in both reflection-in-action and reflection-on-action. In addition, it provided the participants with opportunities to express and share their thoughts about their teaching and learning on their own instead of in collaboration with others.
Participants developed their ability to engage in different types of reflective thinking for different purposes while taking part in the seven processes of videotape analysis as a way to investigate their practice. Data analysis revealed that participants’ ideas and beliefs about reflective teachers evolved over the course of the study. This is important because, in addition to the participants’ ability to engage in different types of reflection, they were also able to better describe and define what reflective teaching looks like. For example, participants were asked, “What does it mean to be a reflective teacher? What do reflective teachers do?” during both initial and exit interviews. In Cameron’s response during his initial interviewed he stated:

I would say a reflective teacher is one who presents a lesson they feel is going to be efficient and effective and of quality, and if that lesson changes or is not effective when they teach it, at the end of the day they’ll either correct it, make some notes, and just think back—Did this work? Should I be doing this? Is this effective? . . . To me that’s a reflective teacher. (transcript, September 17, 2008)

Cameron altered his original response during the exit interview. He stated that he no longer agreed with his first answer because, “If you always wait until the end of the day to think about your teaching, you’ve missed a chance to help students at that moment” (transcript, December 8, 2008). Cameron’s enhanced understanding of reflection may also help to enhance his practice because he recognized the need to modify his practice while he is teaching rather than wait until the lesson is over.
Austin also displayed a deeper understanding of what a reflective teacher is and
does when he stated:

Being a reflective teacher means looking back on their work and thinking about
making lessons better and helping students to learn better and understand. Also,
someone who works to get a clear grasp on the content. I think you have to talk to
other people who are doing things differently to give you ideas. So, getting
feedback from others is something I would add to my original response because
reflecting isn’t something you do on your own. (transcript, December 9, 2008)

Austin’s original response lacked acknowledgement of the importance of improving
lessons, understanding subject matter, and collaborating with others. His participation in
the video club and videotape analysis helped him develop a deeper understanding of the
purpose and value in reflection.

I found that participating in videotape analysis in the form of a video club was an
effective and helpful means to improve participants’ ability to engage in different types
of reflection about their practice. They were able to use this reflective capacity to
enhance their self-awareness (Descartes), investigate their teaching (Dewey), and think
about their practice (Schon). In addition, the participants displayed a deeper
understanding of what a reflective teacher is and does over the course of the study. Table
13 presents the different theorists and types of reflection as well as examples of when
participants engaged in these types of reflection.
Table 13

*Reflective Thinking*

<table>
<thead>
<tr>
<th>Theorist</th>
<th>Type of Reflection</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descartes</td>
<td>Reflect to think about prior experiences</td>
<td>Victoria remembered her experiences as being a shy student and shared this with peers during a discussion in the video club to help them understand that reluctant speakers may hesitate to participate because they are shy and not because they don’t understand the content.</td>
</tr>
<tr>
<td>Dewey</td>
<td>Reflect to investigate</td>
<td>Chloe intentionally selected a clip that illustrated a weak moment in her teaching because she wanted to find ways to improve her practice. In addition, she created questions to help her examine her practice.</td>
</tr>
<tr>
<td>Dewey</td>
<td>Reflect to investigate</td>
<td></td>
</tr>
<tr>
<td>Schon</td>
<td>Reflect during teaching</td>
<td>Austin altered the activities during a lesson when he noticed students were struggling to comprehend.</td>
</tr>
<tr>
<td>Schon</td>
<td>Reflect after teaching</td>
<td>During a video club meeting, Cameron talked about parts of his lesson that needed improvement.</td>
</tr>
</tbody>
</table>
Summary

Participants were able to develop an inquiry-oriented approach to their teaching and learning as well as engage in reflective thinking by participating in an observation session and seven predetermined processes of videotape analysis. The observation session provided the participants with the opportunity to learn about new classroom events to observe and how to formulate questions about teaching. The processes of videotape analysis enabled the students to develop their abilities to notice classroom events, recognize moments of uncertainty, craft questions about their teaching, discuss their practice with peers, reflect on their practice, and seek solutions to their questions.

Participants engaged in different forms of reflection while experiencing the seven processes of videotape analysis as a way to think about practice. Participants took part in reflective thinking to increase their awareness about the effects of prior experiences in order to understand current teaching problems (Descartes), solve teaching dilemmas (Dewey), and think about their practice while teaching as well as after (Schon) in order to enhance their teaching.

Participants developed the ability to investigate and think about their teaching by engaging in each of the seven processes of videotape analysis; however, it was essential for the participants to experience all of the processes in order to enhance and nurture their development. Experiencing one of the processes in isolation is not sufficient because they contributed in different ways to help the participants engage in reflective thinking and examine their teaching.
Noticings

The process of observing lessons in order to notice classroom events helped participants investigate their teaching. I found that participants’ noticings changed over the course of the seven video club meetings. In addition, the quantity of their noticings increased over time. What they noticed is important because it impacts the questions they ask and the input they provide during discussions about teaching. The participants’ noticings comprised three categories: noticings about (a) the preservice teacher, (b) the students, and (c) the content of the lesson. The majority of these noticings concerned the participants during all of the meetings; however, they paid more attention to the content of the lesson and the sequence of events during lessons in later meetings. In addition, I categorized the participants’ noticings as basic, detailed, and advanced to indicate the depth of their noticings.

Basic Noticings

During the first and second video club meetings, participants’ noticings can be characterized as ‘basic.’ By this, I mean they were beginning to develop their observation skills and noticing simple classroom entities and events. For example, Chloe noticed that Cameron used the phrase ‘you guys’ several times while Victoria and Austin noticed that Cameron pointed at students and did not use their names (transcript, October 15, 2008).

Participants were also beginning to learn how to interpret student behaviors. For example, Cameron stated that he noticed several students raised their hands to answer his question. He went on to state, “And this is the reason I know that my directions were clear, based on evidence for it, the number of hands I saw” (transcript, October 15, 2008).
I asked Cameron how he knew what all of the students who raised their hands were thinking when silence ensued after his remark. He paused for a moment and replied, “I don’t” (transcript, October 15, 2008). This led to a brief discussion about including opportunities for students to communicate their thinking. While Cameron did notice students’ behavior, he failed to consider possible alternatives for their actions. This also shows how he, and other participants, jumped to conclusions about what they noticed.

The participants were also beginning to develop their ability to articulate and interpret what they noticed. For example, Austin stated, “She used the board and made the content concrete by circling and underlining. I think it made it clear to the students what she was talking about (transcript, October 22, 2008). I asked Austin what he meant by ‘it made it more concrete’ and he replied, “Well, they can actually see it instead of just saying it and then telling them what the subject is. You underlined it to show them” (transcript, October 22, 2008). My probing enabled Austin to more fully explain his noticing.

Detailed Noticings

The participants began to record and discuss ‘detailed’ noticings during the third and four meetings while continuing to mention ‘basic’ noticings. Detailed noticings were observations given by participants that surpassed basic noticings. When giving detailed noticings, participants began to break down classroom events, fine-tune their noticings, and add supporting details to their noticings and interpretations of noticings. For example, Austin stated that he noticed Chloe provided students with feedback. He elaborated by saying, “Chloe told students she was impressed with their writing”
Another example is when the participants began to notice the sequence of the lesson they observed during the fourth video club meeting. Austin noticed the order of events during Readers’ Theater (Cameron picked volunteers, gave an introduction to Readers’ Theater, gave directions, and gave everyone a copy to read). This noticing led into a discussion about how this activity was organized and what other arrangements may have enhanced students’ understanding. Participants gave suggestions such as introducing Readers’ Theater and giving directions prior to asking for volunteers, as well as providing the students with time to silently read over the script prior to reading it aloud with the whole class.

**Advanced Noticings**

Noticings during the fifth, sixth, and seventh video club meetings display how the participants continued to develop and hone their observation skills and use their noticings to more deeply think about and discuss classroom concerns. Some of participants’ noticings from these meetings could be termed ‘advanced’ noticings because they illustrate participants’ developing ability to become aware of a wider variety of events as well as provide more in depth details than previous meetings. In addition, the participants begin to notice and discuss subject matter during these meetings.

Participants noticed numerous details about the preservice teacher, the students, and the content of the lesson during all three of these meetings. For example, participants noticed that Austin portrayed his enthusiasm by smiling at students and through his tone of voice. Other teacher-student interactions they noted included kneeling next to students when working one-on-one, providing students with feedback, calling students by name,
asking students probing questions rather than provide them with answers, and monitoring student work by talking with the students about and looking at their work. All of these are important noticings because they are teacher-student interaction integral to building rapport. In addition, the participants began to look at the subtle influences of body language and interactions.

They also noticed how content was relayed to students by observing that Victoria modeled an activity and provided step-by-step instructions. In addition, participants noticed that whiteboards were given to each student as a way to engage all students and allow everyone to participate and practice. Further noticings related to the delivery of content included: giving students more time because Victoria noticed some needed more time to work, including a review of the material prior to ending the lesson, wrote students questions and responses on the front board, and used technology (PowerPoint) to provide visual aides.

Specific noticings about subject matter were brought to the forefront during these meetings. For example, during the seventh video club meeting Chloe noticed that one of Austin’s visual aids “was a little misleading” (transcript, December 3, 2008) and may have caused students to misunderstand or misinterpret the information. This led to a discussion about the subject matter and what other kinds of visuals may be more beneficial. Chloe displayed her developing ability to notice content and her ability to connect teaching and student comprehension.
Participants listed basic noticings during all of the sessions as well as detailed noticings during the fifth, sixth, and seventh video club meetings. Table 14 presents the type of noticings that took place and examples of noticings.

Table 14

*Participants’ Noticings*

<table>
<thead>
<tr>
<th>Type of Noticing</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Students sat quietly and raised their hands.</td>
</tr>
<tr>
<td>Basic</td>
<td>Preservice teacher walked around to see what students were doing and called on a variety of students.</td>
</tr>
<tr>
<td>Detailed</td>
<td>Preservice teacher used open-ended questions such as, “Why do you think that?”</td>
</tr>
<tr>
<td>Detailed</td>
<td>The sequence of events during Readers’ Theatre: Cameron picked volunteers, gave introduction, gave directions, gave everyone a copy to read.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Preservice teacher used probing questions throughout the lesson such as, ‘Why, what’s wrong with this?’ and modeled the concept by going through the processes and gave step-by-step directions.</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 14 (continued)

*Participants’ Noticings*

<table>
<thead>
<tr>
<th>Type of Noticing</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>Preservice teacher used information on the board as a reference during the lesson and modeled the task before students worked on their own.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Preservice teacher had the students talk and write things down to help with comprehension and so she could understand what they were thinking.</td>
</tr>
</tbody>
</table>

**Benefits of Videotape Analysis**

Participants experienced the process of investigating their own teaching through videotape analysis. They engaged in several different process: (a) being videotaped, (b) viewing own lesson, (c) selecting clips, (d) providing rationales for clip selections, (e) crafting questions regarding clips, (f) meeting in the form of a video club, and (h) writing responses on an exit slip. This cycle of processes provided them with opportunities to develop an inquiry-oriented approach to their teaching and engage in reflective thinking.

First, watching themselves on video and having peers view their clips enabled participants to recognize uncertainties about their practice and notice aspects of the lesson
and classroom life that were overlooked during the teaching of the lesson. I found that all 4 participants deemed this aspect of videotape analysis as beneficial. For example, Austin considered watching himself as valuable because:

I think that it helps me because I can see what I need to change in my teaching and things that I should implement more often. Being able to see myself teach takes me out from behind the camera and gives me an in-depth look. I can be hard on myself and this helps me to continually attempt at improving not only for my personal sake but for the sake of all of my students.” (exit slip, November 12, 2008)

During the final interview, Austin elaborated on his earlier statement by emphasizing how watching himself on video provided the opportunity to reflect on his practice, increase his self-awareness, and personalize his learning:

I got to see things I do in the classroom that I never realized, that I never noticed. One thing that I noticed like, with students, sometimes I’ll just say, ‘Did everyone get it?’ Hands go up. I move on. Not a good thing to do. I can’t do that, and I didn’t notice that before and even with some of my language choices, like things that I say, and I need to catch myself with that. And I think watching myself gave me a chance to reflect on that because somebody can say it to you after they watched you. . . . You don’t always believe it sometimes, so I think having me do this was a first hand—OK, you are doing this, this is what you need to change. And knowing it comes from me, kind of made it real, to know that I noticed it.” (exit interview, December 9, 2008)
While Victoria noted, “[Being videotaped] is just a different point of view that I don’t think you can really get any other way” (exit slip, November 12, 2008), Cameron stated, I think that the most important thing we do in video club is watch the clip immediately after teaching it. Because it is fresh in our mind, we are able to notice things during the lesson and then notice more things that we may not have observed in the next hour” (exit slip, November 12, 2008).

And Chloe commented, “You just have to see those things for yourself in order to notice that they actually do happen without you noticing them. I think that’s important because a lot of people haven’t had the opportunity to actually see what’s happening” (exit interview, Chloe, December 8, 2008).

Second, selecting clips, providing rationales, and crafting questions about their practice was essential in the participants’ ability to develop an inquiry-oriented approach to their teaching. Asking questions about their teaching was important because it enabled the participants to recognize and articulate uncertainties as well as reflect on their practice. For example, Victoria stated that asking questions, “Encourages us to reflect upon what we did and to form questions about our specific concerns and noticings” (exit slip, November 12, 2008). She went on to say, “Also, as we answer the questions, we are able to build up an ‘arsenal’ of ideas and strategies that we will be able to apply in order to help make our classes more productive, beneficial, and engaging” (exit slip, November 12, 2008).

Third, discussions during video club meetings allowed participants to share ideas, devise possible solutions to their questions, and recognize the importance of collaboration
in the teaching profession. For example, Victoria talked about the importance of listening to others as a way to get new ideas. She also stated, “I think the discussion afterwards was probably the most beneficial part because not only do you get to see it, but then you get different perspectives on maybe how it went or what they noticed” (exit interview, December 9, 2008). In addition, Austin commented:

I think they were beneficial because we could talk about what we did, if it worked, if it didn’t work. It made me see what they would try, and when we did it and it got videotaped, it wasn’t just me. There were four of us that could notice things.” (exit interview, December 9, 2008)

Chloe also deemed working with peers as valuable because:

They notice things that I miss. For example, last week they commented on one of the students and when I watched the tape, I didn’t notice this. After they told me about it, I was careful to pay close attention to the students’ actions during the next class. I think it is great that I can learn from them.” (exit slip, Chloe, October 27, 2008)

Fourth, charting noticings, questions, and possible solutions was also important because it helped participants organize and easily recall their thoughts. For example, Chloe stated:

I think it is beneficial to chart all of our findings because we can see them and come back to them. If we just talked about everything and let it go, it would be harder to remember everything that we’ve gotten out of the video club.” (exit slip, November 12, 2008)
Victoria also found value in recording information on chart paper because, “Having those papers can let us go back and see where we started, give us a starting point from which to progress and to test our ideas. Actually writing down our thoughts helped us see what we were talking about” (exit slip, November 15, 2008).

Participants engaged in videotape analysis as a way to develop an inquiry-oriented approach to their teaching and engaged in reflective thinking about their teaching and learning. Videotape analysis involved several processes; each process proved to be necessary, and beneficial, in order for participants to investigate and think about their teaching.

Summary

The purpose of my study was to explore the effects of preservice teachers’ viewing and discussing videotapes of their lessons with peers on their ability to develop an inquiry-oriented approach to their teaching and learning and develop reflective thinking about their practice. I examined their discussions during different activities as well as their written responses in order to facilitate my research. I discovered that all participants were able to develop an inquiry-oriented approach to their teaching and learning as well as engage in reflective thinking about their teaching and learning. In addition, I found that each element of the process (being videotaped, watching one’s video, selecting a clip, providing a rationale, crafting questions about video clips, meeting in the form of a video club, and responding to exit slips) was necessary in order for them to investigate and reflect upon their teaching and learning.
CHAPTER V
IMPLICATIONS OF THE STUDY

Introduction

The purpose of this research study was to investigate the participation of four preservice teachers in videotape analysis during their first teaching field experience at a local school. New insights pertaining to teacher education may be obtained by examining how these preservice teachers developed an inquiry-oriented approach to their teaching and learning as well as their ability to develop reflective thinking about their practice when taking part in the seven processes of videotape analysis.

These 4 participants displayed the ability to notice a variety of classroom events, craft questions about their practice, engage in discussions about their teaching, search for solutions to their questions, and take part in reflective thinking about their teaching and learning. The participants were able to develop these skills by taking part in the seven processes of videotape analysis. In addition, each participant discussed the importance and benefits of viewing and examining their practice in order to enhance it. This chapter presents an overview of the findings, practical and theoretical implications, and recommendations for future research.

Overview of the Findings

I used qualitative case study (Bogdan & Biklen, 2003; Marshall & Rossman, 1999) to explore the participation of four preservice teachers as they took part in the seven processes (being videotaped, watching one’s lesson, selecting clips, providing
rationales, crafting questions, meeting in the form of a video club, and responding to exit slips) of videotape analysis. Data analysis revealed that each of the seven processes contributed in different ways to help these participants develop an inquiry-oriented approach to their teaching and learning as well as develop their reflective thinking about their practice. I found that the seven processes were interconnected and created a framework that helped these participants investigate their teaching and learning as well as develop their ability to engage in reflective thinking. In addition, I found my role as a facilitator assisted in the participants’ learning.

Data analysis revealed noticings played an important role while the participants engaged in the seven processes of videotape analysis. This is important because what the participants noticed influenced their investigations. For example, what the participants noticed highly influenced which video clips they selected and highlighted moments of uncertainty in their teaching. The participants’ uncertainty about a specific portion of their lesson prompted them to craft questions, engage in discussions with peers, and seek solutions that resulted from what they noticed while viewing their lesson. In addition, participants’ noticings prompted them to engage in different types of reflective thinking. For example, certain noticings reminded some participants of similar, prior experiences. The noticings provoked these memories and helped them recall and connect their past experiences with current situations. I also found that participants considered particular processes of videotape analysis helpful in their ability to reflect upon as well as investigate their practice. The participants’ understanding of how and why they used the seven processes of videotape analysis to learn about and enhance their practice assists in
our understanding of the learning process for these four preservice teachers. For example, all 4 participants stated that watching their videotaped lessons helped them think about and improve their practice. Viewing oneself on video became a meaningful method to reflect upon and enhance their teaching and learning because it provided a visual aid to study their practice.

Practical and Theoretical Implications

The fundamental organization of the experiences of these 4 participants generates implications for practice and theory in the field of teacher education. Teacher educators can design field experiences that integrate a framework in which preservice teachers develop the ability to investigate their teaching and reflective thinking through the use of videotape analysis. In addition, using theories related to reflective thinking and how preservice teachers learn with the aid of video can enhance our understanding of how these seven processes of videotape analysis assisted in the participants’ ability to develop an inquiry-oriented approach as well as reflective thinking about their practice. Thus, it reveals and supports the feasibility of videotape analysis in teacher education. This section will discuss practical and theoretical implications pertaining to field experiences, reflective thinking, and the use of video in teacher education.

Field Experiences

The seven processes of videotape analysis created a framework for these participants to investigate and reflect upon their practice during their field experience. Participants described how taking part in videotape analysis helped them examine and think about their practice while learning to teach. Field experiences need to provide
preservice teachers with opportunities to critically think about and reflect upon their practice rather than focus solely on issues pertaining to classroom management and routine tasks. Participants did focus on procedures and routines; however, they displayed the ability to notice and discuss issues pertaining to pedagogy and subject matter content over the course of the study.

In addition, field experiences provide preservice teachers the chance to practice teaching, develop collaborative relationships with mentor teachers, work with diverse groups of students in varied settings, and receive advice on their teaching. These 4 participants experienced additional elements during their field experience leading to the development of their ability to investigate and reflect upon their teaching and learning by participating in videotape analysis in the form of a video club. For example, the participants developed collaborative, trusting relationships with each other and with me in addition to building relationships with their mentor teachers. The relationships with mentor teachers were formed as a result of spending time at the field school in order to observe their mentors’ practice as well as practice their own teaching. Relationships between and amongst the participants and with me were formed and strengthened because of the time we spent at the field school as well as our interactions during video club meetings. As well, these ‘additional’ relationships provided the participants with unique sources of guidance, support, and feedback. Participants received feedback and assistance from me and their peers in the group, in addition to the feedback they received from their professors and mentor teachers. The feedback participants received from me and their peers in the video club greatly differed from the feedback given by professors
and mentor teachers because we were able to use the videotaped lessons as a visual aid to help the participants understand our views and comments. For example, participants had to rely solely on verbal and written feedback from professors and mentor teachers after they taught a lesson. As well, professors typically only observed one of their lessons during the field experience. Professors and mentor teachers provided the participants with constructive feedback after viewing lessons; however, these observations were considered ‘formal’ observations because the participants were being evaluated on their teaching. Participants expressed anxiety about being assessed on their teaching by their professors and mentor teachers. My feedback and interactions did not convey the connotation of an evaluation, thus removing pressure associated with ‘formal’ observations. As a result, the participants expressed and exhibited a level of comfort with me because I emphasized and enacted the purpose of my role as a guide and researcher.

Time constraints also limited the length and depth of conversations between the participants and their mentor teachers and professors. I was able to engage in one-on-one conversations with the participants each week during clip selections. This enabled the participants and me to deeply think about and discuss their practice. Our conversations were enhanced because we were able to view and replay the lesson and/or particular portions of the lesson as a way to enhance our communication and thoughts. The participants and I didn’t have to simply rely on memory, which may not accurately portray what truly happened, to recall events because we could watch the lesson to aid in our understanding, and support our ideas.
The collaborative relationships that developed amongst and between me and the 4 participants are noteworthy. It is important for mentor teachers, university instructors, and preservice teachers to build collaborative relationships because learning takes places through social interactions. The relationships the 4 participants developed amongst and between themselves, and myself, provided them with additional sources for feedback and guidance. In addition, the participants recognized the value in these ‘additional’ relationships. The participants stated that collaboration with peers in the form of the video club provided them with the opportunity to receive feedback, be exposed to new ideas and ways of thinking, and support in seeking solutions to questions about their practice while learning how to teach.

The act of observation plays a significant role during field experiences. My instruction and guidance during the observation session, when participants viewed their lessons after teaching, and at video club meetings helped the students extend their vision of the classroom beyond the classroom management techniques of the teacher. Participants had opportunities to practice their observation skills in the classroom while observing their mentor teacher as well as outside of the classroom while watching videotaped lessons of themselves and peers. These additional opportunities to practice their observation skills helped them develop the ability to notice more classroom events as well as more advanced noticings pertaining to pedagogy. In addition, their learning became more personal because the participants were able to view and investigate their own practice rather than rely only on observations of experienced teachers as points of reference when learning to teach.
Concerning field experiences, two implications for teacher educators are apparent. First, teacher educators need to incorporate innovative, meaningful learning opportunities during field experiences of preservice teachers. For example, all preservice teachers in the middle childhood cohort participated in a field experience that characterized many elements of field experiences because they all observed their mentor teachers, taught lessons, and received feedback from mentor teachers and university instructors. The 4 participants in the research study were also provided with the opportunity to observe their own and their peers’ practice, receive feedback and support from me and their peers, engage in discussions about their practice during video club meetings, and take part in activities specifically designed to encourage reflective thinking. These additional elements enhanced their field experience because it allowed them to critically reflect upon and think about their teaching and learning while they learned how to teach. Teacher educators should consider including opportunities for preservice teachers to observe peers, view their practice on video, and view, think about, and discuss their practice with peers on a regular basis. Second, teacher educators need to provide preservice teachers with guidance on how to observe a lesson. Yes, preservice teachers can observe lessons taught by mentor teachers; however, what they actually do when they observe a lesson varies. It is important for teacher educators to help preservice teachers develop the ability to observe different classroom events in order to notice, think about, discuss, and enhance their teaching and learning. Teacher educators may use video cases to model how to observe lessons as well as provide preservice teachers the opportunity to practice and develop their ability to notice and discuss a wide variety of classroom
events. In addition, teacher educators can have preservice teachers participate in peer observations as another way to develop their observations skills.

**Reflective Thinking**

Preservice teachers need to engage in critical reflection on experiences and coursework during field experiences as a way to enhance their pedagogical knowledge and to avoid relying solely on the ways they were taught to make decisions about their practice. Participants engaged in several activities specifically designed to encourage reflective thinking. These varied activities acknowledge the different learning styles of students. For example, participants were able to individually record their thoughts on exit slips, engage in collaborative discussions with peers during video club meetings, and take part in one-on-one conversations with me while viewing their lesson and selecting video clips. The participants were not limited to individual, isolated settings for reflective thinking. Rather, they were exposed to individual, group, and one-on-one situations in order to recognize how reflective thinking can result from different opportunities in varied circumstances.

The participants engaged in different forms of reflective thinking for different purposes as a way to enhance their teaching and learning. Many teacher educators design activities to encourage reflective thinking; however, the activities they implement often focus on merely one form of reflection. The 4 participants displayed the ability to engage in the different types of reflection derived from the ideas of Descartes, Dewey, and Schon by investigating their teaching while engaging in the seven processes of videotape analysis. For example, 2 participants exhibited the ability to use the Cartesian form of
reflection when they shared prior school experiences during discussions in the video club. Chloe and Victoria recalled these experiences in order to relate to a current teaching problem and use their personal knowledge to offer possible solutions. All 4 participants engaged in Dewey’s form of reflective thinking to investigate their practice when they selected clips, provided rationales, crafted questions, took part in discussions during video club meetings, and when responding to exit slips. As well, Victoria displayed her ability to engage in reflection-in-action during a video club meeting when she described how she realized she needed to regain the students’ attention and took action after she recognized and thought about the situation. Each of the participants developed the ability to engage in Schon’s reflection-on-action while viewing their lesson, selecting clips, providing rationales, crafting questions, during discussions in video club meetings, and responding to exit slips. One activity, videotape analysis, helped these participants develop the ability to engage in different types of reflective thinking.

The 4 participants recognized the importance of reflective thinking early in the study when they asked me if exit slips could be emailed rather than filled out after the video club meeting. The participants commented that they were rushing their responses and wanted more time to digest and think about everything that took place during the video club meeting. I gladly made this minor adjustment because of the major advantages it provided the participants. In addition, each participant displayed an increased understanding of reflective thinking because all 4 participants altered and enhanced their description of a reflective teacher during exit interviews. Their participation in the seven processes of videotape analysis helped them develop an appreciation for the importance
of reflection as well as engage in reflection in order to enhance their teaching and learning.

Two practical implications pertaining to reflective thinking in teacher education emerged as a result of this study. First, teacher educators need to help preservice teachers understand and appreciate the importance of taking time to think about their practice in order to enhance their teaching and learning. Many preservice teachers are taught to provide students with ‘wait time’ before eliciting responses in order to let students digest, connect, and think about information. Teacher educators should consider discussing the purposes of reflective thinking and providing preservice teachers with this same ‘wait time’ to show preservice teachers that reflective thinking is important and valued.

Second, teacher educators need to consider how to implement varied activities to encourage different types of reflective thinking. In particular, reflective thinking that encourages preservice teachers to investigate their teaching by becoming aware of and seeking solutions to uncertainties in their practice places value in teacher thinking and their ability to make informed decisions. The use of videotape analysis during field experiences helped these 4 participants recognize the importance of taking the time to think about their practice, through a variety of different means, in order to enhance it. Teacher educators should consider using a variety of activities that encourage different types of reflective thinking during field experiences as a way to help preservice teachers develop the ability to critically think about their teaching and learning as they learn how to teach.
Video in Teacher Education

Video has been used in different ways for different purposes in teacher education over the past 50 years. Current uses of video in teacher education include the use of an altered form microteaching, video cases, software applications, and viewing one’s practice to provide preservice teachers with the opportunity to receive feedback, study the practice of experienced teachers, encourage reflective thinking, connect theory and practice, and study their own teaching. In addition, the use of video clubs with in-service teachers has been used as a way to study their practice, receive feedback from peers, and analyze student thinking.

Three implications pertaining to video in teacher education can be drawn as a result of my research. The first implication is how the seven processes of videotape analysis created a framework to study teaching. These 4 participants used video as a tool to investigate and reflect upon their practice; however, merely viewing themselves on video did not convert these preservice teachers into reflective practitioners or critical thinkers. The participants took part in seven predetermined processes (being videotaped, viewing one’s practice, selecting clips, providing rationales, crafting questions, meeting in the form of a video club, and responding to exit slips) of videotape analysis to facilitate their development of an inquiry-oriented approach and reflective thinking about their teaching and learning. The individual processes did not assist in the participants’ ability to investigate and think about their teaching and learning. Rather, the processes overlapped and worked together to produce a framework for the participants to study and reflect upon their practice.
The second implication is how meeting in the form of the video club proved to be a particularly important process of videotape analysis. Video club meetings were a time for participants to notice and share classroom events and ideas, discuss and seek solutions to questions about teaching, engage in reflective thinking about one’s teaching and learning, and develop trusting relationships. It is important to emphasize that the participants developed comfort and trust with each other, and me, over time. It took the participants time to feel comfortable enough with each other to mention ‘unfavorable’ noticings because they did not want to upset one another and/or were unsure of how another participant would react. I attempted to help by reminding the participants that noticings were not judgments, rather what they noticed was simply what they saw and used as points of reference to think and talk about one’s practice. The participants recognized how working together could enhance their practice; having a purpose for their efforts encouraged their participation.

The third implication drawn from video club meetings pertains to my role as a guide and facilitator. Video club meetings were a time for me to provide the students with modeling and guidance. I shared my noticings, asked probing questions, and facilitated discussions to help the participants investigate their teaching. For example, I drew attention to the questions participants began to ask about their teaching that were not formulated prior to video club meetings. This helped the participants recognize how their discussions about their practice prompted them to raise questions as well as engage in an important aspect of an inquiry-oriented approach to teaching and learning. In addition, I shared noticings that included a variety of classroom events to help participants notice
more diverse entities. In addition, my level of participation as a facilitator and guide in the beginning of the study was higher in order to lead the participants through the process of investigating their teaching. The participants had never viewed themselves teaching on videotape before nor had they ever investigated their teaching. My actions were inspired by Vygotsky’s (1978) social constructivist views that support the modeling and assistance I provided.

The potential for preservice teachers to develop an inquiry-oriented approach and engage in reflective thinking about their practice by participating in videotape analysis during field experiences requires teacher educators to consider how to incorporate similar experiences in teacher education programs. Participants highly valued watching their videotaped lessons and investigating their practice; all of them expressed appreciation for the opportunity and believed all the students in the cohort should have the chance to view themselves while they learn to teach during field experiences. Teacher educators need to incorporate opportunities for preservice teachers to build professional relationships with their peers by engaging in discussions about their teaching and learning on a regular basis. Giving preservice teachers the chance to develop these types of relationships may help them recognize the importance of collaborating with peers, and prompt them to continue to build relationships with peers in their future teaching positions.

There are at least three specific difficulties associated with using video in teacher education that teacher educators need to consider. First, is the issue of time. Videotaping preservice teachers can be a time-consuming task, especially if preservice teachers are placed at different field schools. I videotaped each of the participants yet an alternative
would be to have the preservice teachers videotape themselves and/or their peers. Second, consent from the field school (school board, principal, and teachers) and the parents is necessary. It is important for teacher educators to build relationships with principals and in-service teachers in order for them to support this type of activity in their schools. Parental consent may be more challenging due to the ubiquity of technology and concerns related to privacy and confidentiality. Third, the cost associated with purchasing video equipment may be a challenge for some teacher education programs. Teacher educators may consider obtaining financial assistance through grants.

Implications for Further Research

Our knowledge of how the seven processes of videotape analysis assisted these 4 participants in developing reflective thinking and an inquiry-oriented approach to teaching and learning compels questions regarding future studies. Several topics for further research can be explored as a result of the findings.

First, having study participants extend participation in videotape analysis in the form of a video club to include either their second field experience and/or student teaching experience was not explored in my study. All of the participants wanted to extend their involvement in the video club to the following semester because they felt they had just started to develop their reflective, investigative, and teaching skills. They believed that continued participation in videotape analysis would further their growth. Research that examines the prolonged participation of preservice teachers in this type of activity may allow them to further develop and enhance the ability to approach their practice in an inquiry-oriented manner as well as enhance their reflective thinking. In
addition, these participants were each videotaped on three different occasions. A study that increases the number of times participants are videotaped may be beneficial.

Future research may include a larger population size by forming a greater number of video clubs or altering the number of participants in the group. Seventeen out of 18 preservice teachers volunteered to participate in my study after I spoke with them about the opportunity. This highlights preservice teachers’ interest in being videotaped as a way to enhance their practice. In addition, the preservice teachers’ participation in research may be useful in encouraging them to pursue future research studies of their own.

Further, I noticed the participants’ noticings and questions displayed a promising understanding of critical issues pertaining to the teaching and learning process. For example, many of their questions during the beginning of the study pertained to management issues such as lesson transitions, calling on students equitably, and getting students’ attention. These are typical and important concerns of preservice teachers, but participants’ questions and discussions addressing content or delivery were beginning to emerge and develop at the end of the study. It would be beneficial to lengthen the participation time because additional issues could be explored as the participants spend more time in the field.

Another consideration for future research would be to examine more deeply the relationships and interactions of the study participants. The relationships among and between these 4 participants strengthened over the course of the study. I noticed the extent to which an increased degree of collaboration took place and how the participants’ discussions assisted in their ability to develop an inquiry-oriented approach; however,
future research might examine how the participants acted as peer coaches to one another throughout the various processes.

Research that further explores the processes of videotape analysis may enhance preservice teachers’ ability to investigate their teaching. I replicated some of the processes based on the work of Sherin (2000), Sherin and Han (2004), Sherin and van Es (2005) and van Es and Sherin (2008). However, I created my own framework to include specific processes, such as having participants craft questions and respond to exit slips, in order to help them investigate their own teaching and to promote reflective thinking. Identifying additional processes or refining current ones may enhance this experience.

To conclude, future research may examine different purposes for the use of video in teacher education. Thus far, video has been used in different forms, such as microteaching, video cases, video clubs, and software applications. The purposes also vary, such as methods to alter teacher behavior, assess practice, illustrate exemplary teaching, and notice significant classroom events. Advances in technology, shifts in educational theories and practices, and creative thinking generated these uses. Therefore, research that seeks to implement extended forms and purposes of video and technology may benefit preservice teachers.

Limitations

Five limitations were revealed in Chapter III in order to disclose potential shortcomings of my study. First, I purposefully selected the participants based on their desire to participate and their availability. In addition, I only selected participants from one of two cohorts in the middle childhood program at the university. This narrowed my
potential pool for participants; however, I easily able to obtain volunteers for my study. Second, this study focused on preservice teachers during the first field experience in which they were required to plan and teach a lesson by themselves. I did not find this to be a limitation, rather having these four preservice teachers participate in videotape analysis, in the form of a video club, during their first teaching field experience highlighted the value of their engagement in this process during their initial teaching field experience. Third, the participants had limited opportunities to teach, therefore limiting the number of times they could be videotaped. This may have slightly hindered their ability to implement the knowledge they obtained while participating in videotape analysis; however, all the participants displayed the ability to engage in an inquiry-oriented approach and reflective thinking despite being videotaped on only three different occasions. Therefore, the small number of times they were videotaped did not appear to deter their ability to investigate or reflect upon their teaching and learning. Fourth, I had to rely upon the honesty of the participants’ verbal responses during interviews and written responses on exit slips. Their responses were an important source of data; however, I used multiple methods to obtain data to ensure validity. Fifth, the use of video may be considered a limitation because of the potential effect of the video camera on the participants as well as the students. Two participants explicitly stated concerns pertaining to being anxious about being videotaped; however, they were able to teach their lessons without indicating obvious signs of distress. In addition, the presence of the video camera in the classroom did not appear to negatively influence the students’ behavior because the participants were able to teach their lessons without redirecting students’ attention.
An additional limitation that was not previously revealed pertained to my dual roles as a researcher and a facilitator. My dual roles as a researcher and a facilitator may have affected my data collection as well as the guidance I provided the participants. I collected diverse forms of data that were meant to answer my question and support my findings. In addition, I spent a great deal of time interacting with the participants during the study. Because I spent a large amount of time interacting with the participants, my fieldnotes were limited and I used memos to recall and record observations when transcripts were not sufficient.

Conclusion

This study was about implementing videotape analysis during preservice teachers’ first teaching field experience as a way for them to develop an inquiry-oriented approach to teaching and learning. This experience gave preservice teachers an opportunity to view their own practice in order to improve it. Having preservice teachers participate in videotape analysis, in the form of a video club, has the capacity to help them develop the ability to investigate their practice as well as their reflective thinking in order to enhance their teaching and learning.

Most preservice teachers will continue to participate in field experiences during their formal education and will most likely enter this experience with preconceived notions and beliefs about its purpose and structure—both positive and negative. Because of this, preservice teachers need to be exposed to new theories and practices about teaching in order to expand and enhance their practice. One way this may be accomplished is by participating in videotape analysis in the form of a video club.
Viewing one’s practice may enable preservice teachers to more easily link theory and practice, investigate their teaching, collaborate with peers and mentors, reflect on their teaching, and improve their pedagogy.

Dewey (1933) and Schon (1987) both asserted that a problem stimulates inquiry and is followed by an investigation in order to seek a solution. My “problems” were conveyed in my research question, and I conducted my study in order to seek solutions to my questions. The participants in this study were provided with modeling, a framework, and the use of video in order to seek solutions to their questions. The participants and I are alike in that we were able to discover answers to our questions because we used an inquiry-oriented approach. The use of video in my study was a powerful tool because it assisted in the participants’ ability to develop essential skills of noticing, collaborating, reflecting, and inquiring while learning to teach. Video alone did not generate the development of these skills, rather scaffolding, modeling, and guidance as well as engaging in the seven processes of videotape analysis, in the form of a video club, provided the participants with a framework in which to develop their ability to use an inquiry-oriented approach and reflective thinking to improve their teaching and learning.
APPENDIXES
APPENDIX A

PURPOSEFUL SAMPLING QUESTIONS FOR ALL PRESERVICE TEACHERS
Purposeful Sampling Questions for All Preservice Teachers

1) Are you interested in having your lessons videotaped? Why or why not?

2) What other responsibilities, outside of school, do you have?

3) How do you intend to improve your teaching this semester?

4) When you are offered feedback or constructive criticism, what do you do with the information?
APPENDIX B

PURPOSEFUL SAMPLING QUESTIONS FOR SELECT GROUP OF PRESERVICE TEACHERS
Purposeful Sampling Questions for Select Group of Preservice Teachers

NAME: ______________________________________________________

Directions: Please read and respond to all questions. Use the back of this sheet if necessary.

1) Why do you want to be videotaped?

2) Why do you want to analyze and discuss your teaching and the teaching of your peers?

3) What do you hope to gain from participating in this research study?

4) On the previous survey sheet you stated your responsibilities outside of school. Please provide some additional details.
   a) How flexible is your schedule?
   b) Which days and time are you available?
   c) What are your thoughts regarding making a commitment to this research project as an additional responsibility?
APPENDIX C

INITIAL INTERVIEW QUESTIONS
Initial Interview Questions

1) What were your initial thoughts when asked to participate in the video club?

2) What are your expectations for this field experience?

3) What are your expectations with regard to participating in video analysis?

4) Whom do you expect to provide you with feedback during field experiences? What do you intend to do with the information you receive?

5) What might you do when you observe a lesson?

6) What does it mean to be a reflective teacher?

7) What questions do you have about your teaching?

8) How do you intend to seek answers for these questions?
APPENDIX D

EXIT SLIP AFTER OBSERVATION SESSION
Exit Slip After Observation Session

1) What aha moments did you have today, if any?

2) What did you learn about how to observe a lesson?

3) What did you learn about how to take notes when observing a lesson?

4) What questions do you have about observing a lesson?
APPENDIX E

EXIT SLIP FROM 1ST AND 2ND VIDEO CLUB MEETINGS FOR PARTICIPANT VIEWING OWN LESSON
Exit Slip from 1st and 2nd Video Club Meetings for Participant Viewing Own Lesson

1. What did you notice when viewing the clip of your lesson?
2. Why are your noticings important?
3. Were your questions about your teaching answered? Is yes, what did you learn? If not, what questions remain unanswered?
4. Describe the interactions with your peers during the session.
   a) Were they helpful? In what ways?
   b) What did you learn about your own teaching after watching the video?
   c) How will you use the information you attained from the video club sessions?
   d) In what ways was videotape analysis helpful to you? In what ways, if any, was it less helpful?
APPENDIX F

EXIT SLIP FROM 1ST AND 2ND VIDEO CLUB MEETING FOR PARTICIPANT

VIEWING LESSON OF A PEER
Exit Slip from 1st and 2nd Video Club Meeting for Participant Viewing Lesson of a Peer

1. What did you notice when viewing the videotaped lesson of your peer?

2. What suggestions or advice did you give to your peer?

3. What questions do you have about your own teaching?

4. What did you learn about teaching from watching others’ videos and discussing their videos with them?

5. Why is participating in videotape analysis helpful or not helpful?

6. Describe an aha moment that occurred during today’s meeting.
APPENDIX G

EXIT SLIP FROM 3RD VIDEO CLUB MEETING FOR ALL PARTICIPANTS
Exit Slip from 3rd Video Club Meeting for all Participants

1. What did you notice when viewing Chloe’s lesson?

2. Questions about teaching are beginning to emerge (reading aloud, writing, calling on students).

   a) Talk about one of these questions. Your current thoughts about the topic and questions you have.

   b) How will you go about finding answers for your questions?

3. Talk about an ‘ah-hah- moment from today’s session.
APPENDIX H

EXIT SLIP FROM 4\textsuperscript{TH} VIDEO CLUB MEETING FOR ALL PARTICIPANTS
Exit Slip from 4th Video Club Meeting for all Participants

1. Talk about an important noticing you had when watching one of Cameron’s clips. Why is this noticing important?

2. Questions about teaching are beginning to emerge (reading aloud, calling on students, directions).
   a) Talk about one of these questions. Talk about your thoughts on the topic and questions you have.
   b) How will you go about finding answers for your questions?

3. Talk about an ‘ah-hah’ moment from today’s session. (During what point of the session did it occur? What activity were you engaged in?)
APPENDIX I

EXIT SLIP AFTER 5TH AND 6TH VIDEO CLUB MEETINGS FOR ALL PARTICIPANTS
Exit Slip after 5th and 6th Video Club Meetings for all Participants

1. Talk about an important noticing you had when watching one of Victoria’s clips. Why is this noticing important?

2. Talk about an important noticing you had when watching one of Austin’s clips. Why is this noticing important?

3. Talk about an ‘ah-hah’ moment from today’s session. (During what point of the session did it occur? What activity were you engaged in?)

4. You participate in a lot of activities as part of the video club (being videotaped, watching & selecting a clip, viewing others’ clips, recording noticings, discussing noticings, asking questions, and investigating your questions). Talk about at least one of these activities, and how it affects your development as a preservice teacher.
APPENDIX J

EXIT SLIP AFTER 7TH VIDEO CLUB MEETING FOR ALL PARTICIPANTS
Exit Slip after 7th Video Club Meeting for all Participants

1. Talk about an important noticing you had when watching one of Austin’s clips. Why is this noticing important?

2. Talk about an important noticing you had when watching one of Victoria’s clips. Why is this noticing important?

3. Several questions have emerged from discussions during our meetings (in regards to read alouds, calling on students, giving directions, transitions, etc.). Select at least one of these questions, or another question you have. Talk about what you’ve done to find answers or information about this question and talk about what you’ve learned about this question/topic.

4. Would you recommend this experience (videotaping, viewing, & discussing your teaching) to other preservice and/or practicing teachers? Why or why not? Talk about either the benefits or drawbacks of participating in these activities.
Interview Questions After All Video Club Meetings

1) Discuss your experience in the video club.
   a) What were your most memorable moments from the video club meetings?
   b) What did you notice when viewing the video clips?

2) Discuss engaging in conversations with your peers.
   a) Were these discussions beneficial?
   b) Why or why not?
   c) In what ways?

3) Describe the various processes you engaged in during videotape analysis (viewing your video, selecting a clip, crafting questions, viewing your video with peers).
   a) What was it like to experience these processes?
   b) Which parts were most helpful to you? Why?
   c) What would you do differently? Why?

4) Discuss posing questions about your own teaching.
   a) What types of questions did you ask?
   b) How do you suppose forming questions about your own practice will impact your future teaching experiences?
   c) What did you learn about your teaching?
   d) What did you learn about being reflective?
APPENDIX L

SAMPLE PARENT LETTER
Dear Parents,

My name is Joanne Previts, and I am a doctoral student in education at Kent State University. Prior to beginning my program at Kent, I was a fourth- and fifth-grade teacher in Cleveland for 5 years. I am interested in learning how I can improve the instruction of beginning teachers.

I am asking your permission to videotape the preservice teacher in your child’s classroom and your child’s interactions with her or him during the class period. The focus of my videotaping is the preservice teacher, not your child; however, some times your child will be in view of the camera. The preservice teacher has planned lessons that I will observe and videotape. The videotape of the lesson will then be viewed, analyzed, and discussed by the student teacher during meetings in a video club. The purpose of the video club is for beginning teachers to examine and discuss their teaching practices.

I would like the opportunity to write and present my work. I think other teacher educators would like to hear about my experiences using this activity and to hear about how the beginning teachers learned to teach. I would like to use video clips possibly to highlight my educational publications and presentations in the future.

Your child will experience no repercussions nor will it affect her or his grades if you choose not to give consent.

If you want to know more about this dissertation research project, please contact Joanne Previts at jprevits@kent.edu. For additional information you may contact my advisor Dr. Teresa Rishel at trishel@kent.edu. This project has been approved by Kent State University. If you have questions about Kent State University’s rules for research, please call Dr. John West, Vice President and Dean, Division of Research and Graduate Studies (330-672-2704). In addition, your school principal has approved this research.

Thank you very much for your consideration.

Sincerely,

Joanne Previts
Child’s Video Consent Form

I agree to videotaping while a preservice teacher is providing instruction in my child’s classroom during the fall semester of the 2008 school year. The information gathered from the videos may be presented at professional conferences, educational meetings, or shared in professional journals. The sole purpose of sharing information with others will be to further other educators’ understanding of the use of video in teacher education. By signing below I give my consent.

Child’s name (please print)

__________________________________________  __________________
Parent Signature                   Date

_______________________________________
Print Name
APPENDIX N

SAMPLE PARTICIPANT LETTER
Sample Participant Letter

Dear Preservice Teacher,

My name is Joanne Previts, and I am a doctoral student at Kent State University. I am interested in working with you to understand how videotape analysis can impact teacher education during early field experiences.

I would like to understand your field experience. I am interested in learning about what strategies and experiences impact your education. I am also interested in how your participation in a video club affects your development as a future teacher. I will ask to videotape you during the teaching of your lessons. I will also ask you to participate in a video club to view and discuss your lessons and the lessons of other student teachers; finally, I will ask to interview you regarding your experience in the video club. All interviews will be audiotaped.

Eventually, I plan to use my findings for academic papers, teaching, and professional writing. If your responses are ever used, your name will be removed and anonymity maintained. Taking part in this project is entirely up to you, and you will experience no repercussions if you decide not to participate. If you decide to take part, you may stop at any time.

If you want to know more about this research project, please contact Joanne Previts at jprevits@kent.edu. For additional information you may contact my advisor Dr. Teresa Rishel at trishel@kent.edu. This project has been approved by Kent State University. If you have questions about Kent State University’s rules for research, please call Dr. John West, Vice President and Dean, Division of Research and Graduate Studies (330-672-2704).

Thank you very much for considering participation in the research aspect of this project.

Sincerely,

Joanne Previts
APPENDIX O

PARTICIPANTS’ AUDIO/VIDEOTAPE CONSENT FORM
Participants’ Audio/Videotape Consent Form

I agree to audio- and vide taping at Smith Elementary and the university during the 2008 fall semester. I will allow my comments to be used in this study. Audio- and videotapes will be kept for 3 years and then destroyed. The information gathered from interviews, writing samples, class work, and discussions may be presented at professional conferences, educational meetings, or shared in professional journals. The sole purpose of sharing information with others will be to further other educators’ understanding of teacher education.

By signing below, I give my consent.

_________________________________________ _________________________
Signature       Date

_________________________________________
Print name
REFERENCES


Harris, R. C., Pinnegar, S., & Teemant, A. (2005). The case for hypermedia video


Sherin, M. G. (2003). Using video clubs to support conversations among teachers and


