PRESERVICE TEACHERS' SENSE OF EFFICACY: VIDEO vs. FACE-TO-FACE OBSERVATIONS

by

Debra Ellen Chisenhall

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

This study examined preservice elementary education students' sense of efficacy regarding student engagement, instructional strategies, and classroom management based on the type of observations they completed. A total sample size of 64 elementary education students enrolled in four sections of an introductory elementary education course and completed five hours of observation. Students in two sections of the course completed traditional face-to-face observations. Students in the other two sections of the course watched five hours of pre-recorded video observations of elementary education classroom and participated in class discussions regarding the observations. All students completed the Teachers' Sense of Efficacy Scale to measure their self-efficacy regarding student engagement, instructional strategies, and classroom management. Research was conducted using a posttest, quasi-experimental, non-equivalent control group design. Data were analyzed using independent-samples *t* tests. Results of this study indicate there is no significant difference regarding preservice teachers' sense of teaching efficacy based on the type of observations completed. Future research should continue to explore how different components of teacher education programs influence preservice teachers' sense of teaching efficacy.

Keywords: fieldwork experiences, preservice teachers, observations, teacher's sense of efficacy, traditional face-to-face observations, video-based observation

Dedication

There are numerous individuals who have assisted me during my educational journey. I have only been successful in my coursework as a result of the many supportive professors and classmates that have taken the time to provide additional assistance and encouragement. In my personal life, I have had been inspired and supported by many sincere friends and family members, especially my husband and mother. I would like to thank them for their immeasurable and unwavering support and love. I dedicate this manuscript to all that have encouraged and helped me over this journey and to my beautiful son. Lexington, remember to always follow your dreams and aim for the stars. With God, all things are possible!

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Table of Contents

List of Tables

List of Figures

CHAPTER ONE: INTRODUCTION

Background

More than 1,400 institutions of higher education have the task of preparing teacher candidates for the responsibilities of their future classrooms (Greenberg, Pomerance, & Walsh, 2011). Teacher education programs seek to develop a comprehensive curriculum that will prepare future educators with the ability to successfully manage a classroom while promoting student engagement and academic success (Greenberg et al., 2011). One crucial component of all teacher education program curricula is the fieldwork teaching experience. The fieldwork experience provides an opportunity for students to have hands on application of the content they are learning in college coursework in an authentic setting (Mullen, Beilke, & Brooks, 2008).

Field experiences provide an opportunity for preservice teachers to:

- experience an authentic classroom,
- provide an opportunity for students to learn by doing,
- allow students to create emotional connections,
- allow for personal growth,
- provide individual teaching opportunities, and
- provide students an initial chance to be exposed to the education environment (Mullen et al., 2008).

One of the initial fieldwork experiences education students complete is observations in a classroom (Angelici & Santagata, 2010). After completing observations, students are then required to connect what they have observed to what they have learned in coursework, usually

through a written summary and reflection (Angelici & Santagata, 2010). However, often there is not a strong connection between what students are viewing during their observations in the elementary classroom and what is being taught in their college classroom (Wilson et al., 2001). The college instructor has limited knowledge of what preservice teachers observe in the authentic settings and must use the preservice teachers' accounts of what they observed in order to try to make connections to the course curriculum. Having limited knowledge of what preservice teachers have observed confines the instructors' ability to provide a curriculum that scaffolds the introduction of important pedagogical concepts and preservice teachers' ability to understand and apply the concepts. Some scholars have noted that "practicum experiences too often do not meet the needs of candidate learning in their efforts to become independent professionals" (Girod & Girod, 2008, p.309). In addition, what preservice teachers are learning in the college classroom and what they are seeing in an authentic setting can vary greatly depending on the practicum setting, cooperating teacher, and school environment (Girod & Girod, 2008).

One alternative to traditional field experiences that many teacher education programs have implemented is the use of video observations (Angelici & Santagata, 2010). Video observations in a teacher education program requires students to view recorded video footage of an actual classroom in lieu of observing face-to-face. The use of video observations allows the college instructor to have knowledge of what students are observing. Santagata, Zannoni, and Stigler (2007) as well as Star and Strickland (2008) demonstrated that when preservice teachers are able to observe classroom teaching through video observations they are better able to understand teacher practices, learn to observe the way students think, and observe quality instructional techniques aligned with current research and best practices that may not be

observed in a face-to-face setting (Angelici & Santagata, 2010). Since in traditional observation experiences, preservice teachers are independently observing without the college instructor being present, often the preservice teachers struggle to identify what is of importance and to fully understand what they are observing (Angelici & Santagata, 2010). During video observations, the college instructor is able to view the same teaching scenes as the preservice teachers. Using video observations allows the college instructor to provide customized guidance for each video that is being viewed. The guidance from the instructor helps the preservice teachers to be able to focus on crucial instructional elements within the videos and make connections to the content being learned in class (Angelici & Santagata, 2010). The instruction that is offered during video observation provides an opportunity for the college instructor to help preservice teachers develop essential teaching skills. One essential skill that expert teachers possess is the ability to view student performance during activities and make necessary changes immediately (Angelici & Santagata, 2010). Learning how to make immediate instructional changes is a skill gained from repeated teaching experiences and understanding of instructional concepts (Angelici & Santagata, 2010). The use of video observations is valuable in helping preservice teachers understand how improvements to instruction can be made by observing students and learning from teaching interactions (Angelici & Santagata, 2010). van Es and Sherin (2002) said the use of video observations can help preservice teachers to understand student thinking, the teacher's role in the classroom, and how classroom interactions impact teaching. Learning how to notice the important elements in a teaching situation is a skill that most emergent teachers need assistance and practice in acquiring (van Es & Sherin, 2002). With the use of video observations, the college instructor is able to identify the important components of the teaching scenarios being viewed and lead reflective discussions. The ability to view video observations

multiple times provides preservice teachers with time and repetition to observe students and teaching situations in order to gain practice in identifying the critical elements of the teaching scenario being viewed (van Es & Sherin, 2002).

In addition to the type of field experience a preservice teacher completes, an additional factor that could impact teaching ability is a teacher's sense of efficacy. A teacher's sense of efficacy is a personal belief in their own ability to keep students engaged and successful in instruction (Tschannen-Moran & Woolfolk-Hoy, 2001). Teachers who possess a strong sense of efficacy tend to invest more resources in teaching and are more flexible and open to varying instruction in order to best meet the needs of students (Tschannen-Moran & Woolfolk-Hoy, 2001). Teachers with a high sense of teacher efficacy are more committed to the field of education and teaching, and have greater enthusiasm for teaching (Tschannen-Moran & Woolfolk-Hoy, 2001). A teacher's sense of efficacy has a direct impact on the quality of instruction offered and student achievement, engagement, and motivation (Tschannen-Moran & Woolfolk-Hoy, 2001).

Despite knowledge of the value of video observation and teacher efficacy, no research has been conducted to determine if video observation creates a higher sense of teacher efficacy in preservice teachers' ability to keep students engaged, implement instructional strategies, and manage the classroom than traditional observation (Israel, Knowlton, Griswold, & Rowland, 2009). Research needs to be conducted regarding how and if video observations help preservice teachers identify effective teaching (Wong, Yung, Cheng, Lam, & Hodson, 2006). Knowledge of preservice teachers' sense of efficacy based on the type of field observations they complete is crucial to determining the effectiveness of observation experiences, which is pivotal component of teacher education programs. For example, Wong et al. (2006) stated:

> We see this uncovering of personal beliefs as an important part of the professional development of student-teachers. Indeed, we believe that what one pays attention to in videos can be a clear signal of one's underlying theories and beliefs. At present, this is an under-researched area. (p.18)

Therefore, this study explored elementary education college students' sense of teaching efficacy in the areas of student engagement, instructional strategies, and classroom management based on whether they completed traditional face-to-face observations or video observations. Chapter one will provide a background on the historical and current significance of this study, provide a problem statement and purpose statement, explain the purpose of the study, identify the research questions and variables that were used, provide an explanation of key vocabulary, and conclude with a summary of the research study including assumptions and limitations.

Fieldwork experience is an important component in teacher education programs because it provides an opportunity for preservice teachers to be able to see, experience, and apply in an authentic setting the content learned in the college classroom (Mullen et al., 2008). Field experiences should provide future teachers with a variety of teaching related experiences that help link course content to an authentic setting while learning through application (Mullen et al., 2008). Field experiences have long been included in teacher education programs to provide an opportunity for preservice teachers to learn effective instructional practices including student engagement and classroom management in an authentic setting (Bahr, Shaha, Farnsworth, Lewis, & Benson, 2004). Research has demonstrated that the key to a successful field experience involves the inclusion of coursework plus the ability to apply coursework in the field (Kennedy, Cavannaugh, & Dawson, 2013).

Field experiences completed in teacher education programs provide valuable learning opportunities for preservice teachers. However, many times in traditional face-to-face observations, the connection between what preservice teachers are learning in the college classroom and what they are seeing in the actual classroom is weak (Greenberg et al., 2011). Schools that are used for traditional face-to face observations consist of different types of educational environments. These different environments implement various forms of curriculum and instruction, and reflect the unique teaching styles and classroom management techniques of individual classroom teachers (Girod & Girod, 2008). The differences between fieldwork settings often results in preservice teachers observing practices that do not align with what is being taught at the college (Girod & Girod, 2008). In addition to the variations between fieldwork settings, many times introductory education students have not yet acquired the knowledge and experience needed to synthesize what they learned in coursework with what they observe in the classroom (Israel et al., 2009). Furthermore, it has also become difficult for teacher education programs to find enough quality teachers and schools that are willing to host preservice teachers for face-to-face observations (Mahon, Bryant, Brown, & Kim, 2010).

Simulations, such as role-playing, have long been used to anticipate and replicate situations that preservice teachers encounter when working in a classroom (Brown, 2000). In teacher education programs, it is important to connect what is being learned in the college coursework with the authentic setting in a manner that provides preservice teachers with an opportunity to process information critically and reflectively (Wong et al., 2006). Preservice teachers need opportunities to understand and practice difficult to understand pedagogical concepts. Some scholars note that "Teacher expertise cannot be acquired simply by doing, any more than learning to be an effective medical practitioner can be achieved only by observation

and practice" (Wong et al., 2006, p.2). Becoming a teacher requires a high degree of responsibility and accountability. Since preservice teachers are entering a profession with a high degree of accountability, it is imperative that teacher education faculty incorporate instructional strategies that will enhance preservice teachers' understanding and learning (Falsetto, 2011).

A simulation that is used in some teacher education programs is prerecorded video of an authentic classroom setting (Angelici & Santagata, 2010). The use of videos for observation purposes offers a supplement to traditional fieldwork observations (Angelici & Santagata, 2010). The use of videos provides preservice teachers with opportunities to view various teaching environments, the ability to view a particular problem or event, and aid preservice teachers in making connections between different instructional strategies (Wang & Hartley, 2003). The opportunities that are provided from using videos allow preservice teachers to better understand teaching practices, observe student thinking and engagement, classroom management, and quality instructional techniques (Angelici & Santagata, 2010). A distinct advantage regarding the use of video observations as opposed to traditional face-to-face observation is the ability to repeatedly view a teacher and/or student conversation or incident (Wong et al., 2006). Repeatedly viewing the videos allows the preservice teachers to pose questions, as well as initiate and participate in discussions that stimulate "alternative viewpoints and reflection on classroom events" among peers and the course instructor (Hannafin, Shepherd, & Polly, 2010, p.34). The repeated viewings also provide the preservice teachers with practice in defining the critical elements of the teaching scenario (van Es & Sherin, 2002).

The use of videos in teacher education programs is supported by a social constructivist view of learning (Wong et al., 2006). Constructivism is a learning theory positing that individuals construct new knowledge by merging what they already know and have experienced

with new events and ideas (Abdal-Haqq, 1998). In a social constructivist approach to learning, individuals acquire new information by actively engaging in problem solving, using inquiry skills, and working with others towards a common goal (Abdal-Haqq, 1998). The constructivist theory considers the role of the teacher to be that of a guide who encourages the learner by using questions, providing situations that will promote discussions, and prompting students to use their own ideas and beliefs to make conclusions (Abdal-Haqq, 1998). Demonstrating the criteria of a constructivist approach, video based observations provide an opportunity for the college instructor to act as a guide to students who are on the brink of understanding a new concept (Rieber & Noah, 2008, p.90). Video observations allow college instructors to provide crucial additional support for students who are not able to fully comprehend and master the course content without the additional assistance and support of the experienced professional and the opportunity to work with others (Rieber & Noah, 2008). Viewing videos of authentic settings provide time and experience for preservice teachers to connect and apply the new information learned in courses (Mullen et al., 2008). The use of video observations provides an opportunity for preservice teachers to make connections to college course content by working with others to use their problem solving and inquiry skills in order to discuss the questions and problems provided from the course instructor.

The use of video observations is commonly used in teacher education programs. However, little is known regarding how preservice teachers view the use of video observations and if preservice teachers believe that video observations assist in their ability to implement and facilitate the learning of their future students (Girod & Girod, 2008). More specifically, research needs to be conducted regarding the use of video-observations in developing a preservice teacher's sense of efficacy (Israel et al., 2009). A recent study on the use of simulations in

teacher education programs concluded “there has been relatively little in-depth triangulated research on the benefits of using simulations in teacher education” (Teoh, 2012, p.415). In addition, a study conducted by the National Council on Teacher Quality (2011) explains the need for more research regarding the various components of teacher education programs and urges for comparisons to be made between the different instructional techniques that are commonly used in teacher education curricula (Greenberg et al., 2011). There is a need for more research on how the types of experiences, including observations, in teacher education programs impact future teachers’ teaching practices (Greenberg et al., 2011; Wilson et al., 2001). Hence, there is a need for more research that compares the types of programming already being used in teacher education programs (Greenberg, J., McKee, A., & Walsh, K., 2013; Wilson et al., 2001).

One way to measure the effectiveness of the various components of teacher education programs is to assess whether the component increases a preservice teacher’s sense of teaching efficacy. Teacher sense of efficacy is defined as a teacher’s perception of their individual ability “to bring about a desired outcome of student engagement and learning” (Tschannen-Moran & Woolfolk-Hoy, 2001). Since a teacher’s sense of efficacy has been connected to student achievement, motivation, student sense of efficacy, as well as teacher enthusiasm, commitment, and persistence, it is crucial for preservice teachers to develop a positive sense of teaching efficacy during their teacher education program (Woolfolk & Hoy, 1990). Therefore, this study investigated the impact of type of field experience a preservice teacher completes, whether traditional face-to-face observations or video based observations, on their self-efficacy regarding their abilities to implement student engagement, instructional strategies, and classroom management. This research discovered how preservice teachers view the use of video

observations and its impact on their self-efficacy regarding their abilities to implement student engagement, instructional strategies, and classroom management.

Problem Statement

The use of field experiences in teacher education programs is crucial to providing preservice teachers with an opportunity to develop a strong sense of teacher efficacy and apply knowledge learned in coursework in an authentic setting (Rich & Hannafin, 2009). However, often there is not a strong connection between what students are viewing during their observation in the elementary classroom and what is being taught in the college classroom (Greenberg et al., 2011; Wilson et al., 2001). Video observations are sometimes used in teacher education programs, allowing the course instructor to assist preservice teachers in making connections between what they are learning in the college classroom and what is being viewed in the authentic setting (Fadde, 2012). However, the use of video observations needs to be further investigated to establish credibility as alternative to traditional observation. Therefore, the problem of this study is little is known regarding the impact of the type of field experience a preservice teacher completes, whether traditional face-to-face observations or video based observations, on their self-efficacy regarding the ability to implement student engagement, instructional strategies, and classroom management.

Purpose Statement

The purpose of this posttest, non-equivalent control group, quasi-experimental study was to compare the change in preservice teachers' sense of teaching efficacy based on the type of field observations they complete, as measured by the Teacher's Sense of Efficacy Scale, in the education department of a community college in the Mid-Atlantic region of the United States. The independent variable used for this study was the type of observations completed by

preservice teachers: traditional observations or videotaped observations. The dependent variables were the participants' student engagement, instructional strategies, and classroom management posttest scores on the Teacher Sense of Efficacy Scale. The purpose of the study is rooted in the theory of social constructivism.

Significance of the Study

This study is important because little is known regarding the impact of type of field experience a preservice teacher completes (whether traditional face-to-face observations or video based observations) on their self-efficacy as teachers (Guernsey & Ochshorn, 2011; Rich & Hannafin, 2009). More research needs to be conducted regarding the effectiveness of the commonly used components of teacher education program, specifically the field experience observation requirements (Wilson et al., 2001).

Exploring the impact of type of field experience a preservice teacher completes on their teaching self-efficacy can assist colleges of teacher education in designing appropriate curricula that comprise the elements needed for preservice teachers to feel confident in implementing effective classroom management, instructional strategies, and student engagement (Guernsey & Ochshorn, 2011; Brown, 2000). Therefore, the outcome of this research may assist teacher education programs in designing and implementing curricula that support preservice teachers in developing the skills needed to be successful teachers in their future classrooms (Guernsey & Ochshorn, 2011).

Research Question

RQ: Is there a difference in preservice teachers' sense of self-efficacy in regard to student engagement, instructional strategies, and classroom management based on the type of field observations they completed: traditional face-to-face observations or watching recorded training

videos?

Null Hypotheses

$H_0$1: There is no difference in preservice teachers' sense of self-efficacy in regard to student engagement based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

$H_0$2: There is no difference in preservice teachers' sense of self-efficacy in regard to instructional strategies based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

$H_0$3: There is no difference in preservice teachers' sense of self-efficacy in regard to classroom management based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

Definitions

1. *Authentic Setting* - An actual elementary classroom (Hixon & Hyo-Jeong, 2009).
2. *Constructivism* - Higher cognitive understanding is possible through social interactions with other people. A key principle is scaffolding, or zone or proximal development. Scaffolding allows the learning to expand knowledge to a higher level when supported by others. (Eun, 2008)
3. *Face-to-Face Observations or Observations* - A required component of teacher education programs where preservice teachers go into an authentic setting and observe the students and teacher for a specified period of time in order to gain a better understanding of the content learned in college coursework (Greenberg et al., 2011).

4. *Fieldwork Experiences or Fieldwork Teaching* - A requirement component of teacher education programs where preservice teachers go into an authentic setting and observe or interact with students and teachers for a specified period of time in order to gain a better understanding of the content learned in college coursework (Greenberg et al., 2011).

5. *Practicum* - A required component of teacher education programs where preservice teachers go into an authentic setting and observe or interact with students and teachers for a specified period of time in order to gain a better understanding of the content learned in college coursework (Greenberg et al., 2011).

6. *Preservice Teacher* - A student that is attending a teacher education program and desires to be a teacher after completion of the program (Greenberg et al., 2011).

7. *Simulation* - Simulation is a learning activity that seeks to replicate an environment that models reality (Falsetto, 2011)

8. *Teacher Candidate*- A student that is attending a teacher education program and desires to be a teacher after completion of the program (Greenberg et al., 2011).

9. *Teacher's Sense of Efficacy* - "A teacher's efficacy belief is a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (Tschannen-Moran & Woolfolk Hoy, 2001, p.783).

10. *Video-Based Observations* - The use of videos of an elementary education classroom used in the college course for students to see the implementation of the content learned in the college course in an authentic environment (Hixon & Hyo-Jeong, 2009).

CHAPTER TWO: LITERATURE REVIEW

Introduction

There are more than 1,400 institutions of higher education across the United States that face the challenge of preparing teacher candidates for the responsibilities of their future classrooms (Greenberg et al., 2011). Teacher education programs must design and implement a comprehensive curriculum that will effectively prepare preservice teachers for their future roles as educators. The programming that is offered at these institutions varies considerably in their expectations and curriculum design; however, one component consistently found in each teacher education program is the field work teaching practicum, also called practicum, fieldwork experience, or observation assignment (Greenberg et al., 2011; Wilson et al., 2001).

A crucial component of all teacher education programs is the fieldwork teaching experience. The fieldwork experience provides preservice teachers with an opportunity to have hands on application of the content being learned in coursework. The fieldwork experience components provide the opportunity for preservice teachers to reflect and apply what is being learned in coursework in the authentic setting (Posner & Vivian, 2010). Quality fieldwork experiences should offer a variety of learning opportunities for preservice teachers to apply information in multiple contexts and intervals in order to make connections to content learned in coursework and in the authentic setting. Preservice teachers need to be given opportunities to practice learning, developing, and refining skills learned in coursework through personal reflections and applications. As a result of the needs and demands of an ever-changing education system, it is imperative preservice teachers are provided with quality fieldwork experiences that allow for complete mastery and application of course content in order for preservice teachers to feel prepared to meet the demands of their future classroom.

A review of literature revealed that even though video-based observations have been used for years to supplement traditional face-to-face observations, limited research has been conducted regarding how the type of observations a preservice teacher completes, whether traditional face-to-face observations or video based observations, impacts their self-efficacy regarding their abilities to implement student engagement, instructional strategies, and classroom management. Numerous query requests were conducted for this study within EBSCOHost, ERIC Database, professional education journals, and Google Scholar. The queries included searches on field work experience requirements, practicums in elementary education teacher education programs, quality field experiences, challenges in implementing effective observations with elementary education students, and how to meet the current needs of teacher education programs. From the searches emerged a consistent theme: a need for more studies to be completed regarding the effectiveness of the instructional strategies used in teacher education programs in meeting the needs of preservice teachers to be prepared for the responsibilities of their future roles as educators in their own classrooms (Greenberg, et al., 2011; Wilson et al., 2001). As a result, this study will investigate if the type of field experience a preservice teacher completes, whether traditional face-to-face observations or video based observations, has an impact on their self-efficacy regarding their abilities to implement student engagement, instructional strategies, and classroom management.

Field Experiences

Fieldwork experiences are a crucial component of teacher education programs. Field experiences in authentic classrooms provide an opportunity for preservice teachers to develop understanding and application of course content in an authentic environment through authentic

learning experiences (Dawson, 2006). Fieldwork experiences allow students to practice implementing the skills and content learned in coursework. Fieldwork experiences also provide an intrinsic motivation for preservice teachers, as they are able to develop personal relationships and emotional connections with students and other educators (Dawson, 2006; Hixon & Hyo-Jeong, 2009). The fieldwork experience is an opportunity for a preservice teacher to "apply and reflect on their content, professional, and pedagogical knowledge, skills, and professional dispositions in a variety of settings with students and adults" (Rich & Hannafin, 2009, p.52). The field experience provides an opportunity for preservice teachers to become involved in the school setting and an opportunity to start to think and feel like teachers, before the completion of the final student teaching (Hixon & Hyo-Jeong, 2009, p.294). The completion of field experiences early in a teacher education program provides preservice teachers with time and practice to decide if teaching is indeed a correct personal career choice (Hixon & Hyo-Jeong, 2009, p.294).

Fieldwork experiences offer future educators an opportunity to see what they are learning in their coursework in a real classroom (Mullen et al., 2008). In addition, the fieldwork experience provides an opportunity for preservice teachers to learn best teaching practices in an authentic setting from a model professional that is willing to help them think about and examine teaching practices (Bahr et al., 2004; Hixon & Hyo-Jeong, 2009). The combination of these elements enables preservice teachers to start to view themselves as teachers and improve their thoughts about education and their teaching skills (Hixon & Hyo-Jeong, 2009). Therefore, the key to a successful preservice teacher program is to provide an appropriate amount of course work and field experiences (Kennedy et al., 2013). Dawson and Fichtman-Dana (2007) emphasized the importance of providing time for preservice teachers to think about and examine

teaching practices during fieldwork experiences. Teacher candidates have greater understanding of practical practices when they are given opportunities to generate their own pedagogical questions and given the time and resources to resolve their own understanding of self-derived issues through personal experiences, research, and application (Dawson & Fichtman-Dana, 2007). Important factors in a preservice teachers' understanding and educational progress are their attitudes and feelings (Bahr et al., 2004).

Consequently, teacher candidates should be given fieldwork opportunities early in their education. Watson, Miller, and Patty (2011) researched the importance of ensuring teacher candidates have early fieldwork experiences where teacher candidates are provided with immediate feedback from supervising teachers in order to reflect on practices and development of skills and understanding. For example, Mullen et al., (2008) stated:

> The considerable literature base in this area advocates for increased and varied experiences. Henry outlines the influences of field experiences on students that include the following: (1) field experiences link teacher candidates to the actual teaching settings; (2) field experiences exemplify the classical concept of learning through experience; (3) field experiences have a higher degree of emotional involvement, mostly positive; (4) field experiences are growth producing; (5) field experience offer the opportunity for one-to-one reaching encounters; (6) goals are internally determined rather than externally imposed; and (7) prospective teachers are indicted into the existing school milieu. (p. 22-23)

It is important for teacher education programs to provide the pedagogical knowledge for preservice teachers to develop a more comprehensive understanding of the course content and how to apply the content in the actual setting in various ways in order to differentiate instruction

for students (Shulman, 1987). Preservice teachers need to be able to view various teaching scenarios in many different settings involving students with diverse skills and dispositions. Preservice teachers that attend teacher programs in rural and less diverse areas often are not able to participate in field experiences working with diverse students and/or diverse settings (Hixon & Hyo-Jeong, 2009). The acquisition of the knowledge accrued during these multiple observations is imperative in order for preservice teachers to be successful in instructing future students effectively (Wang & Hartley, 2003). It is also important for the teacher education programs to stay directly involved with the preservice teachers during the fieldwork experiences. Preservice teachers who participate in fieldwork experiences supervised by the teacher education program, instead of the authentic setting, report having greater ability to make a positive impact on future student achievement (Feuer, Floden, Chudowsky, & Ahn, 2013). This is important as the quality of a student teaching experience is one of the most important factors of a teacher education program in preparing preservice teachers for their future classrooms (Feuer, et al, 2013).

Furthermore, teacher education institutions have long desired to create a balance between course work and time spent in actual classrooms, as well as strive to create teaching situations that mirror the daily realities of teaching in a classroom (Rich & Hannafin, 2009). It is equally important to provide opportunities where preservice teachers can safely be immersed in the educational environment (Rich & Hannafin, 2009). As the use of simulations and technology have become more available to teacher education programs, the possibilities of providing authentic opportunities for preservice teachers to participate and observe quality education instruction have also increased (Hixon & Hyo-Jeong, 2009; Rich & Hannafin, 2009, p.65). As a result, teacher education programs must assess the quality and programming offered to

preservice teachers in order to create and implement a curriculum that prepares them to be successful in their future roles as educators who are equipped to provide effective and differentiated instruction to students.

Traditional observations. A crucial component of a teacher education program curriculum is the traditional field experience. All teacher education programs provide a hands-on requirement where students are expected to observe or participate in an actual classroom for a specified period of time (Greenberg et al., 2011; Wilson et al., 2001). The term that is used for this experience often varies between programs. Some programs may refer to this experience as fieldwork, or field experiences, while others may call it a practicum, internship, or student teaching. For some institutions, authentic experiences are referred to as observations. In the observations, the preservice teachers are more of an onlooker than a participant (Wilson et al., 2001). Regardless of what teacher education programs call this experience, these program requirements were designed and intended to give preservice teachers an opportunity to see an actual classroom setting first hand and learn from a professional in the field (Girod & Girod, 2008).

In traditional observations, preservice teachers are required to find their own placement to observe an actual classroom or are assigned by the institution a school or classroom teacher to contact in order to establish a placement. In either scenario, the preservice teacher is responsible for establishing the contact and making arrangements to observe. The college instructor may provide the preservice teachers with observation criteria. During these observations, the preservice teacher does not have direct supervision and is responsible for making reflective notes on what they are observing. After an assigned period of observations are completed, the preservice teacher writes a summary and reflection paper outlining what they observed in the

classroom. The preservice teacher submits the document to the college instructor who may use the information to guide a discussion of the preservice teachers' observations. In most cases, students are placed at different institutions with different classroom teachers making for different learning experiences for each preservice teacher. The college instructor must decide if the observations the preservice teacher submitted are accurate (Angelici & Santagata, 2010).

Simulated field experiences. Simulations in education have long been used to replicate education based scenarios that preservice teachers are unable to experience firsthand (Girod & Girod, 2008). Simulations are used for a variety of purposes. Simulations may be used to demonstrate to preservice teachers how to implement certain instructional strategies, how to manage a parent conference, or even how to handle a difficult classroom management situation. With the increase of technology, there has also become an increase in the complexity and types of simulations teacher education programs are able to offer (Hixon & Hyo-Jeong, 2009).

Different types of simulations require different levels of technology. Some teacher education programs place students in the authentic setting to complete traditional field experiences, and use technology as a way to bridge communication and supervision between the teacher education program and fieldwork setting (Hixon & Hyo-Jeong, 2009). Other teacher education programs may use technology for preservice teachers to view live streaming video of a classroom while they are observing from a remote location (Hixon & Hyo-Jeong, 2009). Another form of technology simulation is the use of pre-recorded video of a classroom that preservice teachers are able to view from the Internet, a CD, or a DVD. Preservice teachers are able to view the classroom footage repeatedly, either independently or at a time provided by the teacher education program (Hixon & Hyo-Jeong, 2009). Another form of technology based simulations is the use of virtual programming such as Second Life that allows teacher education

programs to create three dimensional virtual worlds where preservice teachers must interact and communicate with others while working towards a provided goal (Teoh, 2012).

Teacher education programs must decide if traditional field experiences, simulated field experiences, or a combination of the two types of experiences should be implemented in the program. Programming components need to ensure preservice teachers are provided with quality instruction and experiences that will prepare them for their future classrooms.

Concerns Regarding Traditional Field Experiences

Despite the known value of traditional field experiences, there are some professionals in the field of teacher education that warn against relying too heavily on the use of traditional field experiences to prepare preservice teachers (Brown, 2000). In traditional field experiences, a preservice teacher is placed in one teacher's classroom for the duration of the semester or field experience which limits the preservice teacher's exposure to diverse educational experiences. In addition, teacher education programs have become more challenged in finding and coordinating enough placement locations for all of the preservice teachers. Another challenge is ensuring the placement location and supervising teacher share a philosophy of education similar to that of the teacher education program. Also, preservice teachers must be cognitively ready to make meaning and connections between what they are observing in the authentic setting and what they are learning in the college classroom. These are all concerns with traditional field experiences.

Placement. In most teacher education programs, students are placed in one teacher's classroom for the duration of the semester. However, this does not allow the preservice teacher to view different teaching styles or classrooms (Hixon & Hyo-Jeong, 2009). Studies show that in instances where a preservice teacher observed or assisted one educator for the duration of semester, the preservice teacher developed a more confined and narrow minded approach to

teaching (Brown, 2000; Hixon & Hyo-Jeong, 2009). Furthermore, the assigned teacher's instructional style, classroom management techniques, or implemented curriculum may not correlate with the teacher education program's philosophy or expectations of these elements. This can create a disconnect between what preservice teachers are learning in the college classroom and what they are seeing in the authentic setting (Greenberg et al., 2011; Hixon & Hyo-Jeong, 2009; Wilson et al., 2001). In addition, among the vastly different classrooms and classroom teachers, a preservice teacher may be placed in a situation where what they are viewing in the actual classroom is the opposite from what they were taught in their college coursework (Girod & Girod, 2008).

Placement challenges. Some researchers note the ideal opportunity for preservice teachers to learn student engagement, classroom management, and instructional techniques is from an experienced and successful educator in an actual setting (Mahon et al., 2010). However, as classroom teachers are challenged with stringent accountability measurements and increased responsibilities, their willingness to host or supervise a preservice teacher has declined (Mahon et al., 2010). It has become harder to find placement locations and supervising teachers for all of the preservice teachers that are in need (Hixon & Hyo-Jeong, 2009; Mahon et al., 2010). In addition to the challenge of finding schools and teachers that are willing to host preservice teachers, teacher education programs need to find locations and teachers that share similar philosophies of education to that of the program (Hixon & Hyo-Jeong, 2009; Mahon et al., 2010). These reasons can create an issue in the ability of teacher education programs to offer and implement quality field experiences for preservice teachers (Hixon & Hyo-Jeong, 2009; Mahon et al., 2010).

Limited prior knowledge. The overall goal of the field experience requirement is to prepare future educators to become effective and independent teaching professionals, but often, the field work experiences do not meet the preservice teachers' needs in order to accomplish this goal (Girod & Girod, 2008; Hixon & Hyo-Jeong, 2009). Often, the reason preservice teachers are not successful in acquiring the necessary skills and understanding from a field experience is because they have not yet developed the knowledge base in order to apply and connect what they have learned in coursework with what they are viewing in the actual classroom (Hixon & Hyo-Jeong, 2009; Israel et al., 2009). Also, since each preservice teacher is placed in a different classroom setting, they are limited in their ability to participate in pedagogical and reflective discussions that reflect shared experiences (Hixon & Hyo-Jeong, 2009). During early field experiences, many preservice teachers are unable to make essential connections between course content and the realities of an authentic setting as result of their limited exposure and knowledge of pedagogical concepts (Hixon & Hyo-Jeong, 2009; Israel et al., 2009). This is a concern when preservice teachers must make application to the diverse learning styles and backgrounds of their future students (Israel et al., 2009). Because of this, it is difficult for even the most effective teacher education program to implement a successful field experience with preservice teachers who have not developed the needed understanding of the complexities of the modern classroom and student (Israel et al., 2009).

Simulations in Teacher Education Programs

Simulations, such as acting out real events that occur in authentic settings have long been a part of teacher education curricula (Brown, 2000). Simulations such as games, role-playing, and other instructor-created instructional activities have a history in teacher education programs in providing preservice teachers with learning experiences that aide in understanding of course

content and making relevant application in the authentic setting (Girod & Girod, 2008). Simulations provide critical opportunities for preservice teachers' to develop and use problem solving skills which is helpful in the preparation of their future roles as teachers (Brown, 2000). Simulations also allow students to have shared experiences which provide opportunities for peer collaboration and reflection on the observed education based scenarios. This enables for facilitation of collaborative discussions and problem solving questions where students have an opportunity to share similar and diverse perspectives (Hixon & Hyo-Jeong, 2009). However, with the use of simulations come several concerns regarding the effectiveness and current use of simulated teaching experiences.

Benefits of simulations. Prior to the use of simulations, preservice teachers primarily relied on hearing their instructors' accounts of teaching in the classroom (Brown, 2000). Simulations are now offered in a variety of formats that allow preservice teachers to be more involved and engaged in the instruction (Hixon & Hyo-Jeong, 2009). In addition to the use of traditional simulations such as role playing and instructor created games, technology is becoming more widely used and accepted as a means for offering and implementing teacher professional development. The use of synchronous and asynchronous technology is often used to facilitate teacher education training and teacher professional development (Dana, Dawson, Wolkenhauer, & Krell, 2013). Many times the same components are present in a quality professional development experience regardless of whether it is presented in a technology or face-to-face format. As noted, crucial elements needed for successfully facilitating a fieldwork experience in teacher education are the teacher candidates' needs to be able to design and implement quality curriculum and instructional strategies while meeting the needs of a diverse student body, and opportunities to interact with other educators (Roe, Ross, & Smith, 2009). The use of

simulations allows for the successful inclusion of these elements in simulated field experiences. A meta-analysis on the use of computer gaming and interactive simulations for learning concluded that individuals who were able to use "interactive simulations or games reported higher cognitive gains and better attitudes toward learning compared to those using traditional teaching methods. This result agrees with the current overall "sentiment of scholars noting that interactive experiential activities that increase motivation also show increased learning outcomes" (Vogel et al., 2006, p.237).

Technology based simulations. In order for simulations to be considered effective instructional strategies, they need to include the dissemination of a new concept, an opportunity to apply the content, and immediate feedback to the learner while utilizing the new information (Bill, 2003). Technology enhanced simulations further increase the instructional effectiveness of simulations even. For example, technological simulations such as video observations, provide an interesting manner of disseminating information that acquires and maintains the learner's attention as well as allows the learner to control their own time schedule for viewing and processing content (Bill, 2003). Most video simulation programs provide the student or teacher with a guide or instructional material. The use of such materials informs the learner of the objectives or purpose of the scenario being modeled before it is presented (Bill, 2003). This allows the learner to make essential connections between what they know and what they are about to see. Technology enhanced simulations such as the use of videos, provide an opportunity for the instructor to facilitate follow up questions and discussions after the learner has completed the simulations. The learner must recall the content of the completed simulation in order to solve problems and make applications and reflections on what has been viewed. This reflective time provides an opportunity for additional guidance from the instructor, and allows

the instructor an opportunity to provide individualized feedback when working exclusively with one student (Bill, 2003). Technology enhanced simulations provide a controlled instructional environment where each learner is able to view the same content as her peers while being able to draw from past simulations to transfer knowledge and make connections in understanding the instructional objectives of the lesson (Bill, 2003). Being able to complete the same experiences as peers, allows for shared learning experiences that may promote a richer discussion and deeper understanding of the content as well as respect for different perspectives (Hixon & Hyo-Jeong, 2009). Technology enhanced simulations engage the learner by providing an individualized learning experience aimed at presenting information in an effective and interesting manner, while providing opportunities for the learner to apply and use the content.

Simulation concerns. Despite the known benefits regarding the use of simulations in teacher education programs, there are also some concerns that must not be overlooked. For example, many preservice teachers are anxiously looking forward to the time they are placed in actual classrooms (Hixon & Hyo-Jeong, 2009). Most preservice teachers enjoy the interactions between the students and teachers as well as experiencing the school environment during field experiences. The use of simulated experiences may create a feeling of detachment between the preservice teacher and the classroom setting and they may feel like they have missed an opportunity to be in the authentic setting (Hixon & Hyo-Jeong, 2009). Video simulations are created by the recording of an actual classroom. The presence of the camera in the classroom may alter the students' or the teachers' typical behavior, resulting in a recording of something other than what normally would have been observed in that setting creating in essence, an artificial scenario (Hixon & Hyo-Jeong, 2009). In addition, technology difficulties, such as the inability to view the simulation, lack of necessary technology, or technology failure could result

in the simulation not being used and/or being associated with a negative experience (Hixon & Hyo-Jeong, 2009).

Presently, accountability for teachers is at a record high (Falsetto, 2011). This accountability means that instructors who teach in higher education institutions must constantly be searching for instructional strategies that will enable preservice teachers to be engaged with course content and process and apply the information needed to be a quality teacher (Falsetto, 2011). Preservice teachers cannot learn to be professional teachers just simply by observing classrooms and practicing activities (Wong et al., 2006). It is important for teacher education programs to provide opportunities for preservice teachers to connect the theory of teaching with the practice of teaching. Teacher education programs have a mission to develop effective educational experiences for preservice teachers that allow the preservice teachers to connect theory and research-based understandings with opportunities that mirror the authentic classroom while allowing preservice teachers to develop the ability to be reflective and critical thinkers (Wong et al., 2006). Without a solid instruction of theoretical and foundational pedagogical knowledge, preservice teachers are unable to counter the limitations a future educational organization may have on influencing their teaching (Wong et al., 2006).

Video-Based Field Experiences

The use of video recordings of preservice teachers in authentic classrooms to obtain feedback from professionals and peers has been used since the 1960's in teacher education programs (Rich & Hannafin, 2009). During the 1980's and 1990's the use of video recording in teacher education programs was used to allow preservice teachers the opportunity to analyze a professional teacher's thought and decision process, the modeling of appropriate instructional practices, and to provide the opportunity for preservice teacher's self-reflection (Rich &

Hannafin, 2009). Since then, the use of video-based recordings to provide field experiences for preservice teachers has become widespread in teacher education programs (Rich & Hannafin, 2009). As technology has advanced, so has the ability to create, facilitate, and share better quality videos that are more accessible to teacher education programs and reflect quality teaching (Heintz, Borshein, Caughlan, Juzwik, & Sherry, 2010). The use of video observations affords shared learning experiences among the preservice teachers which encourages reflective discussions among peers Furthermore, the use of video observations provides an opportunity for the college instructor to provide additional instruction to aid in the transfer of information from the theory discussion in the college classroom to the application in the authentic setting.

Diverse content. The use of videotaped recordings of teachers facilitating lessons is often used in teacher education programs to replace or supplement the traditional face-to-face fieldwork experience (Angelici & Santagata, 2010). The videos show proficient classroom teachers modeling exemplary instructional strategies (Fadde, 2012). Some teacher education programs use locally created videos of classroom instruction and some programs use a more staged video recording that is produced by publishers (Fadde, 2012). The use of videos allows preservice teachers to see and reflect upon good teaching, observe diverse teachers, students, and classroom settings, and encourages preservice teachers to implement the modeled effective instructional strategies in their own future teaching (Hixon & Hyo-Jeong, 2009; Wong et al., 2006).

Video field experiences provide an opportunity for preservice teachers to see a variety of teaching styles, classroom environments, and view multiple ways of identifying and problem solving a solution to a teaching situation or classroom event (Hixon & Hyo-Jeong, 2009; Wang & Hartley, 2003). Video observations allow preservice teachers to build their content knowledge

and understanding in a non-stressful environment. Preservice teachers are able to see teaching being implemented in an authentic setting which affords a greater opportunity than simply reading about a situation in a textbook, and also removes the anxiousness and stress of being placed in a new and or uncomfortable learning setting (Wong et al., 2006). Video field experiences also allow preservice teachers to have shared learning experiences because they are all observing the same teachers and students which promote reflective thinking (Hixon & Hyo-Jeong, 2009). Therefore, when preservice teachers are able to observe classroom teaching through video observations, they have an opportunity to better understand teaching practices, observe student thinking and engagement, classroom management, and quality instructional strategies that they are learning about in college coursework in which they may or may not have the opportunity to view during traditional face-to-face observations (Angelici & Santagata, 2010).

Instructor guidance. When videos are used to supplement face-to-face observations, the college instructor typically provides guidance to the preservice teachers regarding what they are viewing and helps them to make connections between what is being viewed in the authentic setting and what they learned in coursework. "Research has shown that without guidance preservice teachers find it difficult to identify what matters in teaching and to elaborate on what they see" (Angelici & Santagata, 2010, p.1). It is important for the college instructor to offer class discussions and opportunities for reflection that allow the preservice teachers to become "critical, reflective, and analytical observers" (Wong et al., 2006, p.6).

When provided with this important opportunity to practice reflection, preservice teachers can observe the situation from both the teacher and student perspective, to consider what they would have done in a similar situation (Wong et al., 2006). During these reflection moments,

instructors should lead preservice teachers to the discovery of how a teacher's personal feelings, beliefs, values, worldview, and philosophy of education impact how they teach (Wong et al., 2006). When preservice teachers are simply observing someone else in the busy and often chaotic setting of an authentic classroom, there is not an opportunity to practice such important self-reflections (Wong et al., 2006).

Therefore, when video field experiences are used in teacher education programs with quality guidance from the college instructor, the ability to observe good quality teaching can improve the quality of a teacher education program (Guernsey & Ochshorn, 2011). The significance of observation assignments can be improved when preservice teachers have the opportunity to observe video recordings of classrooms (Guernsey & Ochshorn, 2011). The use of video recordings can provide a valued opportunity for preservice teachers to be able to apply the new pedagogical knowledge they have acquired, knowledge of diverse learners, and knowledge of instructional strategies in an authentic setting (Israel et al., 2009). In addition, with the participation in instructor guided discussion, the use of videos can be a valuable tool to help preservice educators practice the much needed skill of reflection (Wang & Hartley, 2003).

Connections. The goal of field experiences is to allow preservice teachers an opportunity to begin to act and think like authentic teachers and video observations provide that opportunity for preservice teachers to begin to put themselves in the role of an actual teacher (Wong et al., 2006). The viewing of more complex teaching situations provides a catalyst for preservice teachers to see and reflect upon how a teacher's actions influence the students in the classroom and to reflect upon more abstract teaching concepts that are often difficult to conceptualize without seeing the first hand application (Wong et al., 2006). Girod and Girod (2008) stated, "simulations may hold enough pedagogical power to affect teacher thinking and

reflection on teaching practices" (p.330). After the videos have been viewed, follow up discussions in the college classroom between the instructor and preservice teachers enables the preservice teachers to identify the important elements in a teaching situation, decide what needs attention, and discuss different perspectives of the same scenario (van Es & Sherin, 2002).

The incorporation of video technology is often used in teacher education programs to model effective teaching strategies to preservice teachers and to provide an opportunity for preservice teachers to put themselves in the role of a classroom teacher (Wong et al., 2006, p.6). Video observations afford the opportunity for preservice teachers to repeatedly view a specific event and to analyze and discuss the situation with peers and the college instructor (Wong et al., 2006). The ability to develop these conversations offer preservice teachers the opportunity to consider alternative views on the same issues and practice the crucial skill of personal self-reflection as well as make connections between instructional strategies that are used (Hannafin et al., 2010). The use of video based observations will continue to be used in teacher education programs to provide a quality and effective alternative to traditional field experiences (Wong et al., 2006).

Constructivist Learning Theory

The use of video observation in teacher education programs is supported by a constructivist view of learning. Constructivism is a theoretical framework based on the belief that individuals construct new knowledge by merging what they already know and have experienced with new events and ideas (Abdul-Haqq, 1998). In order to understand and learn new information, most constructivist learners need to become engaged with the content and have opportunities to connect the new information with their existing knowledge and experiences (Mullen et al., 2008). In a constructivist approach to learning, the learner acquires new

information by actively engaging in problem solving, using inquiry skills, and working with others (Abdal-Haqq, 1998). The ability to make connections between new information and prior understanding leads to a higher level of cognitive understanding for the learner. The process of developing higher cognitive understanding is possible through social interactions with other people, in particular, someone who has already mastered the information that is being learned (Vygotsky, 1978). In the constructivist theory, the role of the teacher is that of a guide who has already mastered the material. The guide, or teacher, encourages the learner by using questions that stimulate critical and advanced thinking skills. The teacher provides and facilitates situations and environments that will promote discussions and prompt students to use their own beliefs and ideas to make conclusions (Abdal-Haqq, 1998).

As pertains specifically to education, in a constructivist approach to learning the content should be introduced to learners through meaningful activities that allow an opportunity for understanding and application of the desired concept (Stetsenko, 2010). In order for this to occur, learners need to be provided with opportunities to be directly involved with the material and engaged in activities that will allow for personal discovery and understanding (Stetsenko, 2010). Equally important to the learners' mastery of the content is the ability to apply the information in a practical purpose that allows the learner to see the direct practicality of the information and form a personal connection (Stetsenko, 2010).

Video observations incorporate the key elements of the constructivist theory. During class discussions regarding the videos, the college instructor initiates and facilitates questions and discussions to the class. The college instructor serves as a guide to preservice teachers who independently would not be fully able to understand the significance of what they are observing (Rieber & Noah, 2008). The college instructor is able to provide crucial additional support for

students who are not able to fully comprehend and master the content of the course without the support of an experienced professional and the opportunity to work with other learners (Rieber & Noah, 2008). Video-based observations that include course instructor guided discussions and reflections aid students' ability to understand, process, and apply the course content in the authentic setting. With the use of video based observations, the instructor acts in the role of the "outside agent in helping a learner to make sense of and use" the video lessons to develop a greater pedagogical understanding (Rieber & Noah, 2008, p.90). Having the ability to view videos of authentic settings provides preservice teachers with the needed time and experience to connect and apply what they are learning in their coursework to the authentic setting (Mullen et al., 2008). The use of video observations allows opportunities for preservice teachers to connect college course content while working with peers to use problem solving and inquiry skills to solve problems and analyze situations provided by the college instructor.

In addition, the use of video observations meets the criteria for effective professional development. Eun (2008) emphasized that for professional development to effectively incorporate the constructivist theory, learners need to have a clear purpose for the activity being directed, incorporate joint-problem solving that directly relates to the shared goals, have a more capable participant that can act as a guide, and provide time for participants to utilize the newly learned skill in an applicable manner. Video observations meet the criteria of effective professional development by allowing preservice teachers to see the content being learned in the college classroom implemented in the actual setting. With the guidance of the college instructor, preservice teachers are able to expand their understanding regarding not only the content being studied, but view multiple diverse teaching scenarios and styles of teaching. The college instructor is able to provide an opportunity for the preservice teachers to discuss and problem

solve relevant and authentic classroom scenarios that occur in the videos aiding in the learners' abilities to see the direct relevance of the content.

Preservice teacher training programs that implement various instructional strategies that reflect a constructivist approach to learning, provide opportunities for the future educators to explain their current opinions regarding teaching and learning, are encouraged to learn new ideas and implement them in different circumstances, be exposed to views that are different from their own, and learn how to adjust and modify their new knowledge as they develop a deeper understanding of teaching and the teaching process (Wong et al., 2006). Therefore, video observations correlate well with teacher education programs that use a constructivist approach to learning.

Teacher's Sense of Efficacy

Another factor that influences a preservice teacher's ability level is their sense of efficacy. A teacher's sense of efficacy is their personal belief in their ability to keep students engaged and successful in instruction (Tschannen-Moran & Woolfolk-Hoy, 2001). "This judgment has powerful effects. Teachers' sense of efficacy has been related to student outcomes such as achievement, motivation, and student's own sense of efficacy" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.783). Efficacy is correlated with the amount of effort a teacher invests in the profession and a strong sense of efficacy has been linked to teachers that are more organized and possess good planning skills (Tschannen-Moran & Woolfolk-Hoy, 2001). Scholars note that teachers with a strong sense of efficacy are more willing to implement and seek new instructional ideas in order to be equipped with the ability to meet the various and diverse needs of students (Tschannen-Moran & Woolfolk- Hoy, 2001). A teacher's efficacy

belief influences their ability to persevere when faced with failure or adversity and causes them to be less critical of students who are struggling (Tschannen-Moran & Woolfolk -Hoy, 2001). Teachers with a strong sense of efficacy are less likely to refer a child for special education (Tschannen-Moran & Woolfolk-Hoy, 2001). In addition, teachers with a stronger sense of efficacy exhibit more enthusiasm and commitment to the teaching position and are more likely to continue in the education profession (Tschannen-Moran & Woolfolk-Hoy, 2001).

A teacher's sense of efficacy is based on their perception that they can develop and facilitate the needed operations to bring a student to perform at the expected level (Tschannen-Moran & Woolfolk-Hoy, 2001). Greater efficacy has also been correlated to greater confidence in a teacher's own abilities (Tschannen-Moran & Woolfolk-Hoy, 2001). Additionally, some note that personal teaching efficacy has to do with a person's feelings of competence as a teacher (Tschannen-Moran & Woolfolk-Hoy, 2001). Bandura (1997) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p.3). Self-efficacy is the belief someone has regarding their competence in a certain situation. Self-efficacy influences a person's beliefs, emotions, goals, how they handle failure and setbacks, and perseverance (Tschannen-Moran & Woolfolk-Hoy, 2001). Ultimately, a teacher's sense of efficacy has a direct impact on the quality of instruction offered and student achievement, engagement, and motivation (Tschannen-Moran & Woolfolk-Hoy, 2001).

How to effectively measure teacher efficacy has been the study of much research. For example, several scales to measure teacher efficacy, such as the Rand measure, the Webb scale, Gibson and Dembo's teacher efficacy scale, and Bandura's teacher efficacy scale have been developed over the years. However, many have not been widely accepted or used in research

(Tschannen-Moran & Woolfolk-Hoy, 2001). The first study of teacher efficacy by the "Rand researchers conceived teacher efficacy as the extent to which teachers believed that they could control the reinforcement of their actions, that is whether control of reinforcement lay within them or in the environment" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.784). In a second study completed by the Rand researchers, a sense of efficacy in teachers was exhibited by "a strong positive link not only to student performance but to the percent of project goals achieved, to the amount of teacher change, and to the continued use of project methods and materials after the project ended" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.785). In 1981, a 30-item instrument for measuring responsibility for student achievements was developed by Guskey (Tschannen-Moran & Woolfolk-Hoy, 2001). Guskey found positive correlations between a teacher's sense of efficacy and responsibility for student success and student failure (Tschannen-Moran & Woolfolk-Hoy, 2001).

However, one of the problems in measuring teacher efficacy is the level of specificity that is often associated with teaching. Teachers become experts in not only the pedagogy of teaching but also the content matter that they are presenting (Tschannen-Moran & Woolfolk-Hoy, 2001). Teacher efficacy can also change from situation to situation from teachers being confident working with one student in one content area but not confident working with a different kind of student in a different content area (Tschannen-Moran & Woolfolk-Hoy, 2001). A reliable measure of teacher efficacy should capture teacher confidence regarding their ability to work with all different types of students in many different settings and content areas (Tschannen-Moran & Woolfolk-Hoy, 2001). A model of teacher efficacy created by Tschannen-Moran et al. in 1998 proposed that a reliable and valid measure of teacher efficacy must include

"personal competence and an analysis of the task in terms of the resources and constraints in particular teaching contexts" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.795).

Based on this premise, individuals participating in a seminar at The Ohio State University College of Education on teaching and learning efficacy designed a more valid measure to assess teacher efficacy (Tschannen-Moran & Woolfolk-Hoy, 2001). The participants included two teacher educators that were graduate students, four teachers, and two doctoral students. All eight participants had at least five years teaching experience (Tschannen-Moran & Woolfolk-Hoy, 2001).

The group reviewed the different self-efficacy instruments that were previously used. Using Bandura's original scale, a long and tedious process of reviewing the similarities and differences among the items used in previous measures was undertaken. The group decided a 9-point scale would be used, "with anchors at 1-nothing, 3-very little, 5-some influence, 7-quite a bit, and 9-a great deal" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.796). The assessment measure was originally named the Ohio State teacher efficacy scale, but is now most commonly referred to as the Teacher's Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001). Over the course of three studies to measure the validity and reliability of the scale, the questions were continually edited and eliminated or substituted and examined (Tschannen-Moran & Woolfolk-Hoy, 2001, p.796). The final draft of the measure consisted of two different forms referred to as the long form and the short form. The long form, which was used for this study, has 24 items (Tschannen-Moran & Woolfolk-Hoy, 2001) (Appendix A). "Finally, the factor structure, reliability, and validity of the new measure was examined, as well as the appropriateness of the new scale for both preservice and inservice teacher populations" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.796).

The Teachers' Sense of Efficacy Scale can generally be used to measure a teachers' overall sense of teaching efficacy as well as efficacy in three different subscales. The long form of the scale can be grouped by items in order to create a subscale score for a teacher's sense of efficacy regarding students' engagement, instructional strategies, and classroom management (Tschannen-Moran & Woolfolk-Hoy, 2001, p.801). The item by item analysis for computing subscale scores when using the long form of the Teacher Sense of Efficacy Scale is located in Table 1 (Hoy, n.d.).

Table 1

Efficacy Subscale Scores

Long Form		
Efficacy in Student Engagement	Items	1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies	Items	7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management	Items	3, 5, 8, 13, 15, 16, 19, 21

Even though measuring teaching efficacy includes a great deal of inference, the Teacher's Sense of Efficacy Scale is considered to be the best of the currently available measures for capturing a teacher's sense of efficacy (Tschannen-Moran & Woolfolk-Hoy, 2001). A teacher's sense of efficacy has been proven to be a crucial factor in determining their ability to meet the needs of future students and manage classroom responsibilities (Tschannen-Moran & Woolfolk-Hoy, 2001). It is crucial that components of teacher education curricula are successful in establishing and instilling a positive sense of efficacy in preservice teachers' ability to keep students engaged, implement effective instruction, and manage the responsibilities of a classroom.

Gaps in the Literature

As teacher education programs have the responsibility of preparing preservice teachers' for their roles as educators in an environment with high stakes and accountability, there is a dire need to ensure the most appropriate and effective instructional strategies are being used in designing a comprehensive teacher education program curriculum. There is a need for more research to be conducted regarding the effectiveness of teacher education program curricula. In particular, there is a need for research to be conducted regarding the use of video-observations in developing a preservice teacher's sense of efficacy (Israel et al., 2009; Wilson et al., 2001).

The responsibilities and demands for classroom teachers require changes to be made in teacher education programs in order to graduate preservice teachers that are well prepared (Wang & Hartley, 2003). Course work and field experiences need to make preservice teachers more familiar and comfortable using observation tools and instructional strategies, staying engaged and focused on students, and the ability to practice self-reflection (Guernsey & Ochshorn, 2011). Teacher education program curricula and instructional strategies should continually be reviewed to ensure they are producing a comprehensive program that will help preservice teachers identify effective teaching strategies (Guernsey & Ochshorn, 2011). A 2001 study conducted by the Center for the Study of Teaching and Policy describes the need for more research regarding the varying components of teacher education programs and the need for comparisons to be made between the different instructional techniques that are commonly used in teacher education curriculum (Wilson et al., 2001). The study describes a need for more research on how the types of experiences, including observations, in teacher education programs impact future teachers teaching practices and student achievement (Wilson et al., 2001). There is a need for more

research that compares the types of programming already being used in teacher education programs (Greenberg et al., 2011; Wilson et al., 2001).

As noted, there is a need for more research regarding the differences in self-efficacy of teachers who completed traditional face-to-face observations and video-based observations (Israel et al., 2009). A recent study on the use of simulations in teacher education programs established "there has been relatively little in-depth triangulated research on the benefits of using simulations in teacher education" (Teoh, 2012, p.415). More programs should be developed that extend the use of simulations in helping preservice teachers connect course material to the real world classroom setting (Girod & Girod, 2008).

Even though the use of video-based observations experiences has become prevalent in teacher education programs, little is known regarding how preservice teachers view the use of video observations and whether preservice teachers perceive that video observations increase their ability to implement and facilitate the learning of their future students (Girod & Girod, 2008; Angelici & Santagata, 2010). More research needs to be conducted regarding the use of video observations in developing a preservice teacher's sense of efficacy (Israel et al., 2009).

This research will fill the void in current literature by comparing the use of video-based observations and face-to-face observations in teacher education programs while measuring how the type of observation completed influences a teacher's sense of efficacy. The outcome of this study will be crucial in helping teacher education programs design appropriate curricula. Appropriate teacher education curricula should include instructional activities that allow preservice teachers to view, reflect on, transfer, and apply skills that will enable them to implement effective curriculum, classroom management, and student engagement strategies in their future roles as educators. "In these days of hard-nosed accountability, teachers' sense of

efficacy is an idea that neither researchers nor practitioners can afford to ignore" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.803).

Every day teacher education programs strive to meet the challenge of implementing and facilitating effective curriculum in assisting preservice teachers to develop, master, and apply the content and pedagogy skills needed in order to become quality and effective education professionals (Greenberg et al., 2011). The field experience is a program component of all teacher education programs. The field experience provides an opportunity for preservice teachers to experience an authentic classroom setting while applying and seeing firsthand the content learned in coursework. The key to a successful teacher education program is a combination of coursework and experiences in the authentic setting. The fieldwork experiences should provide preservice teachers with multiple opportunities to apply the skills learned in coursework and provide opportunities for personal reflection. The quality of a fieldwork experience is considered to be one of the most important factors in providing a preservice teacher with the skills needed to be prepared for their future classroom. However, as a result of limited availability of placement locations and the difference that often exist in teacher philosophies and environment structures, there is not a strong correlation between what preservice teachers are learning in the college classroom and what they are observing in the authentic setting. In order to offer a better quality field experience, many programs of teacher education are using video-based observations as field experiences. Simulations, such as the use of videos to observe an authentic setting have long been used in teacher education program curricula. Video observations provide preservice teachers with the opportunity to see many different teaching styles, environments, and teaching situations. The video-based observations provide an opportunity for the college course instructor to ensure preservice teachers are viewing quality observations and

promote class discussions that help preservice teachers make connections between what they are observing and what they are learning in the course work. Through the instructor-guided class discussion and reflections, preservice teachers are provided with an opportunity to begin to think and act like teachers. Without the instructor guided assistance, many preservice teachers lack the background knowledge, theoretical understanding, and experience to be able to connect with and understand what they observing in traditional face-to-face observations. This is consistent with the theory of constructivism regarding the ability of individuals to attain greater understanding when provided with the scaffolding of someone who has already mastered the subject matter. In a constructivist approach to learning, the learners are able to master new content by merging what they are learning with what they already know. This learning occurs during social interactions with other learners and with a guide that is proficient in the content. During the use of video observations, the college instructor acts as that guide to help students connect what they are viewing in the videos, with what they have learned in coursework, and provide opportunities for reflection and personal application. During completion of field experiences, a teacher's sense of efficacy is developed. A teacher's sense of efficacy is their personal belief in their ability to keep students engaged and successful in instruction. Teaching efficacy has also been linked to teachers' organization and planning skills. A teacher's sense of efficacy is important in understanding how confident a teacher is in areas such as student engagement, instructional strategies, and classroom management. These are crucial areas in the development of an effective teacher. Limited research has been completed on how preservice teachers establish a strong sense of teacher efficacy. This study will fill an important void in research in comparing if the type of field experience a preservice teacher completes influences their sense of teaching efficacy. The outcome of this study will assist in the development of teacher education program curricula

designed to maximize the development of teaching efficacy in preparing future teachers for their responsibilities regarding student engagement, instructional strategies, and classroom management.

CHAPTER THREE: METHODS

Design

The purpose of this posttest, non-equivalent control group, quasi-experimental study was to compare the change in preservice teachers' sense of teaching efficacy based on the type of field observations they complete, as measured by the Teacher's Sense of Efficacy Scale, in the education department of a community college in the Mid-Atlantic region of the United States.

A quasi-experimental, posttest non-equivalent control group design was used in this study because the assignment of participants was nonrandom; there was a manipulation, and there was a control group (Rovai et al., 2013). A true-experimental design would have been more rigorous but it was not possible as students self-enrolled into the course that was used in this study. A quasi-experimental design was the best for this study because naturally occurring groups were used (Rovai et al., 2013).

For this study, four sections of one introductory education course were used. Students self-enrolled into the section that worked best for their personal schedules. Because of this, it was not possible to assign specific students to sections of the course; therefore, naturally occurring groups were used. Two sections of the course completed traditional face-to-face observations that were typically completed at the study site. The students in these sections of the course were the control group. The treatment group completed video-based observations. All students completed a posttest of the Teachers' Sense of Efficacy Scale. The purpose was to compare a preservice teacher's sense of efficacy regarding student engagement, instructional strategies, and classroom management based on the type of field observations they completed, as measured by the Teacher's Sense of Efficacy Scale. Similar literature uses the same design (Tschannen-Moran & Woolfolk-Hoy, 2001).

Research Question

RQ: Is there a difference in preservice teachers' sense of self-efficacy in regard to student engagement, instructional strategies, and classroom management based on the type of field observations they complete; traditional face-to-face observations or watching recorded training videos?

Null Hypotheses

$H_0$1: There is no difference in preservice teachers' sense of self-efficacy in regard to student engagement based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

$H_0$2: There is no difference in preservice teachers' sense of self-efficacy in regard to instructional strategies based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

$H_0$3: There is no difference in preservice teachers' sense of self-efficacy in regard to classroom management based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

Participants and Setting

The participants consisted of students who self-enrolled in four sections of an introductory elementary education course that required a field experience observation assignment. Students who enrolled in this course were elementary education majors in a teacher education program at a community college in the Mid-Atlantic. Students were typically working

on an Associate of Arts in Teaching degree, most students were first year college students, and this was the first education course they completed. Before enrolling in their first education course, students must have completed ENG 090 or ENG 091 (which are the College's precollege level remedial courses) or have tested at College level in English during the College's entrance placement exam. No additional criteria must be met by the students before they enrolled in the program. Education students must have completed a state of Delaware Criminal Background check and showed proof of a negative Tuberculosis test before they started any observations. It was not possible to know the demographic information for the student population that were enrolled in the course prior to the start of the study. However, the researcher collected the demographic information from the students by asking the students to complete a short survey (Appendix E). Demographic information collected from students included gender, age category, ethnicity, whether the student had experience working with children in a formal setting, and years of experience working with children in a formal setting if applicable.

Students enrolled in the control section of the course completed traditional face-to-face observations and were the control group. Based on past enrollments, it was expected there would be around 15 students in each section. Students who enrolled in the treatment sections of the course (that is also part of a learning community with an introductory reading course) were the treatment group. This was the treatment group as there was a guarantee by the college of having at least 15 students in the learning community sections. Advisors at the college have been trained to advise students to participate in learning community courses. In the past, the learning community course has started the semester with at least 15 students enrolled in the course. Students were provided with the consent to participate form (Appendix D). The

instructor explained the observation assignment is a course requirement but students may choose whether to participate in the research study and complete the Teacher Sense of Efficacy Scale.

A convenience sample was used because the researcher relied on the participants that were available (Rovai et al., 2013). The sampling frame was registered students in an education course (Rovai et al., 2013, p.51).

The total sample size was 64 students. It was expected there would be around 15 students who completed traditional face-to-face observations. Additionally, it was expected there would be around 15 students who completed video-based observations; this conforms to research noting that a non-equivalent control group design should have a minimum of 15 students in each group (Campbell & Stanley, 1963). However, a small sample size of 15 students in each group may result in insufficient power to reject a false null hypothesis (Rovai et al., 2013, p.112).

The setting for this research study was a community college in the Mid-Atlantic. The community college has an education department with seven different education majors. The education majors that are offered are early childhood development, birth to second grade, elementary education, paraeducator, math secondary, math middle school, and science secondary education. Education majors pursue the Associate of Arts in Teaching degree. The Associate of Arts in Teaching degree consist of 73 credits compiled from 22 courses. Upon graduation, students usually transfer to a four-year institution where they continue their education and pursue bachelors' degrees. With a bachelors' degree in education, students meet one of the criteria needed to be employed in the public school system. The research for this study focused on the students enrolled in the elementary education major. This study was conducted using an introductory elementary education course, which is the first education course students take in the

elementary education major. However, it might not be students' first semester at the college. The purpose of the class used for this study was to provide preservice teachers with an overview of the teaching profession and discuss the philosophical, historical, and social foundations of teaching and curriculum frameworks. The class was a three credit course with a mixture of verbal and written assignments and a five hour observation assignment.

Students enrolled in the control sections of the course completed five hours of traditional face-to-face observations in an elementary school classroom outside of college course time. The students were placed in elementary school classrooms by the Education department observation placement coordinator. Once students were assigned an elementary education teacher, they were then responsible to contact the teacher and schedule the days and times to come into the classroom and observe for five hours. Students stayed with the one assigned teacher for all five hours. Students independently observed the classroom teacher and classroom interactions and submitted a written report to the instructor discussing what was observed and learned during the observations. The instructor had to decipher if the students' report appeared to be accurate. The instructor used the students' report to initiate a discussion regarding what was observed during the observations. The students had different experiences since they were placed with different teachers, in different schools, observed different subjects, at different times of the day, and with different grades.

Students enrolled in the sections of the course, which is identified as the treatment group, watched five hours of video taped observations of an elementary education classroom. Students were given access codes which allowed them to access the Class Video Library and watch the assigned videos outside of class time. Students were provided with prompts to respond to in a written report which was submitted to the instructor (Appendix F). The prompts asked students

to summarize what was observed, reflect on the importance of the teaching scenario, and connect the scenario and instructional idea presented to their future classroom. Each prompt was customized to reflect the individual video segment. The video observation curriculum that was used was the Class Video Library by Teachstone. The video segments fall into nine categories with each video varying in length. The nine categories are: positive climate, teacher sensitivity, regard for student perspectives, behavior management, productivity, instructional learning formats, concept development, quality of feedback, and language modeling. Students were provided with directions to access and watch the videos outside of class time (Appendix I). Students were given open-ended questions to reflect on during and after watching videos and submitted the typed reflection to the college instructor. The college instructor used the Video Library Companion Guide to facilitate a discussion that had students recall the content viewed in the videos, reflect on the significance of what was viewed, and make connections between the information gleaned and personal application to his or her future classroom. The instructor reviewed the students' comments and thoughts for each video as well as overall detect, reflect, and connect questions for each dimension (Appendix F). It was anticipated that the video discussions would be around 15 minutes in length. The researcher had prepared a schedule for the instructor of what dimensions would be covered each week (Appendix G). This research approach is based on the theory of social constructivism, which posits that one reaches a higher level of learning when provided with the guidance of someone who has already mastered the content. All students completed posttest of the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001) to determine if the type of observations they completed had an impact on their teacher sense of efficacy regarding student engagement, instructional strategies, and classroom management during the five hours of observation completed in an introductory

education course. All elements of the sections of the course were held constant with the same assignments, course and student expectations, text book, etc. except for the observation experience. The same instructor taught the control and treatment sections. This site was appropriate because this is a teacher education program that is currently experiencing some of the problems supported in literature regarding providing students with appropriate and meaningful field experiences that connect what students are learning in coursework with what they are observing in the elementary classroom.

Instrumentation

The instrument of measurement used for this study was the Teacher's Sense of Efficacy Scale long form developed by Megan Tschannen-Moran and Anita Woolfolk-Hoy (2001). The long form contains 24 items (Appendix A). The scale is available for download and use from Anita Woolfolk-Hoy, Ph.D.; Dr. Hoy has posted a generic letter giving researchers permission to freely use the Teachers' Sense of Efficacy Scale in research (Tschannen-Moran & Woolfolk-Hoy, 2001) (Appendix B). In the present study, the instrument measured the dependent variable of preservice teacher's sense of efficacy. "A teacher's efficacy belief is a judgment of his or her capabilities to bring about desired outcomes of students engagement and learning, even among those students who may be difficult" to teach (Tschannen-Moran & Woolfolk-Hoy, 2001, p.783). When used with preservice teachers, the developers recommend researchers use the 24 item long form scale "because the factor structure often is less distinct for these respondents" (Tschannen-Moran & Woolfolk-Hoy, 2001).

Participants in a seminar at The Ohio State University College of Education on teaching and learning efficacy designed and validated a measure to assess teacher efficacy (Tschannen-Moran & Woolfolk-Hoy, 2001). The participants in designing the new measure of teacher

efficacy included two teacher educators that were graduate students, four teachers, and two doctoral students (Tschannen-Moran & Woolfolk-Hoy, 2001). The teaching experience among the eight participants ranged from 5 to 28 years of education experience (Tschannen-Moran & Woolfolk-Hoy, 2001).

The group reviewed the different self-efficacy instruments that were previously used in order to create a more valid measurement of teaching efficacy. Using Bandura's original scale, a long and tedious process of reviewing the similarities and differences among the items used in previous measures was undertaken. The creators of the scales decided that a 9-point scale would be used, "with anchors at 1-nothing, 3-very little, 5-some influence, 7-quite a bit, and 9-a great deal" (Tschannen-Moran & Woolfolk-Hoy, 2001, p. 796). The assessment measure was originally named the Ohio State teacher efficacy scale but is now most commonly referred to as both the long and short forms of the Teacher's Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001). The reliability and validity of the new instrument was measured over the course of three studies (Tschannen-Moran & Woolfolk-Hoy, 2001, p.796). "…the factor structure, reliability, and validity of the new measure was examined, as well as the appropriateness of the new scale for both preservice and inservice teacher populations" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.796). The item by item analysis for computing subscale scores when using the long form of the Teacher Sense of Efficacy Scale is located in Table 1 (Hoy, n.d.).

Even though measuring teaching efficacy includes a great deal of inference, the Teacher's Sense of Efficacy Scale is considered to be the best currently available measure for capturing a teachers sense of efficacy (Tschannen-Moran & Woolfolk-Hoy, 2001). A teacher's sense of efficacy has been linked to being a crucial factor in determining their ability to meet the

needs of future students and manage classroom responsibilities (Tschannen-Moran & Woolfolk-Hoy, 2001). It is crucial that components of teacher education curriculum are successful in establishing and instilling a positive sense of efficacy in preservice teachers' ability to motivate students, implement effective instruction, and manage the responsibilities of a classroom.

The reliability for the 24-item scale was 0.94 (Tschannen-Moran & Woolfolk-Hoy, 2001). The subscales of instruction, engagement, and management had an intercorrelation of $p<0.001$ (Tschannen-Moran & Woolfolk-Hoy, 2001). The reliability coefficients were 0.91 for instruction, 0.90 for management, and 0.87 for engagement (Tschannen-Moran & Woolfolk-Hoy, 2001, p.799).

The concurrent validity was measured "by assessing the correlation of this new measure and other existing measures of teacher efficacy" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.801).

Procedures

The researcher met with the school administration of the research site to secure permission to complete the study. After permission had been granted from the study site, the researcher submitted an application to the Institutional Review Board (IRB). After completing the IRB process and receiving permission to begin the study, the researcher met with the course instructor. The researcher met with the instructor of the courses used in the study. The researcher explained the study to the instructor and reviewed instructor's expectations. The instructor was told not to alter instruction in any way for the control group. For the treatment group, the instructor was provided with access to the Teachstone Class K-3 Video Library. The instructor of the treatment group was told to allocate enough class time to provide time for class questions and discussion regarding what students observed in the videos. The instructor was told

to help students make connections between course work and what they observed in the classroom. In order to maintain the fidelity of the treatment, the instructor of the treatment group was asked to use the Video Library Companion Guide to facilitate discussions and only have students view the videos located in the Video Library. The researcher developed a schedule of the videos that were viewed each week by the students and the correlating weekly discussion facilitated by the instructor (Appendix G). The researcher provided copies of the efficacy scale to the instructor to administer the fifth week of the semester to be used as a posttest after students had complete five hours of observations. A survey was given to the participants before starting the observation hours that collected demographic information (Appendix E). The researcher collected all of the data from the instructor, with identifying information removed and demographic data included. The researcher stored data on a password-protected computer. Students were asked to participate in the study. Students were informed that their election to or not to participate in the study would not affect their grade or relationship with the course instructor in any manner. All students in the treatment sections were required to participate in the video observations as this is a course requirement. However, students were able to choose to not participate in the research study and not complete the posttest if they declined to participate. Students who do not want to complete video observations, were given the option of changing to another section of the same course that is completing traditional observations. Students were provided with and asked to complete an informed consent page that outlined the nature and purpose of the study, as well as explained any risks or benefits associated with the study (Appendix D). A cover page was attached to the posttest that asked for the students' college research assigned identification numbers. The researcher looked at the overall data of the group. The initial survey collected demographic information from the students such as gender, age,

ethnicity, and previous experience working with children. Directions were provided to the participants with detailed information regarding how to log in to the Video Library, access codes, and step-by-step directions for viewing the videos (Appendix H). In order to control for instrumentation threat to validity, the posttest were identical copies of the Teacher Sense of Efficacy Scale long form and the researcher asked the instructor not to make any additional comments to the students other than the directions provided on the scale. The researcher asked the instructor if any students did not complete two or more of the video observations. Students who did not complete two or more of the video observations were not included in the study in order to ensure construct validity.

Data Analysis

Independent-samples *t* tests were used to analyze the three null hypotheses regarding the difference between the posttest student engagement, instructional strategies, and classroom management Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based observations. The assumption of normality was tested using Kolmogorov-Smirnov test. The Kolmogorov-Smirnov was used since there were more than 50 participants in this study (Rovai, et al., 2013, p.213). The assumption of equal variance was tested using Levene's Test of Equality of Error Variance. Levene's Test of Equality of Error Variance was appropriate to use as the participants represented random groups and independent samples were being measured on one variable (Rovai, et al., 2013, p.289). Independent-samples *t* tests were used to analyze the three null hypotheses. A Bonferroni correction was used to control for Type 1 errors (Rovai, et al., 2013, p.265). Based on the Bonferroni correction, the significance level of .016 was used. The

significance level of .016 was obtained by dividing the usual effect size of .05 by three since three dependent variables were used in this study (.05/3=.016) (Rovai, et al., 2013, p.265).

CHAPTER FOUR: FINDINGS

Research Question

RQ: Is there a difference in preservice teachers' sense of self-efficacy in regard to student engagement, instructional strategies, and classroom management based on the type of field observations they complete; traditional face-to-face observations or watching recorded training videos?

Null Hypotheses

$H_0$1: There is no difference in preservice teachers' sense of self-efficacy in regard to student engagement based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

$H_0$2: There is no difference in preservice teachers' sense of self-efficacy in regard to instructional strategies based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

$H_0$3: There is no difference in preservice teachers' sense of self-efficacy in regard to classroom management based on the type of field observations they completed; traditional face-to-face observations or watching recorded training videos, as measured by the Teachers' Sense of Efficacy Scale.

Descriptive Statistics

The participants in this study were elementary education majors enrolled in an introductory to education course at a community college. As shown in Table 2, 77 students

participated in the study; 34 (44.2%) belonged to the treatment group and 43 (55.8%) belonged to the control group.

Table 2

Number of Participants

Group	N	Percent
Treatment	34	44.2
Control	43	55.8
Total	77	100

As shown in Table 3, the participants consisted of 66 (85.7%) females and 11 (14.3%) males. The treatment group contained 30 (38.9%) of the females and 4 (5.1%) of the males. The control group contained 36 (46.8%) of the females and 7 (9.1%) of the males.

Table 3

Participants' Gender by Group

	Females		Males	
	N	%	N	%
Treatment	30	38.9%	4	5.1%
Control	36	46.8%	7	9.1%
Total	66	85.7%	11	14.3%

The majority of the participants identified their ethnicity as Caucasian (75.3%), while eight (10.3%) students identified their ethnicity as Hispanic, six (7.7%) students as Other, and five (6.4%) students as African American. Please see Table 4.

Table 4

Participants' Ethnicity by Group

	Caucasian		Hispanic		Other		African American	
	N	%	N	%	N	%	N	%
Treatment	24	31.1%	5	6.4%	3	3.8%	2	2.5%
Control	34	44.2%	3	3.8%	3	3.8%	3	3.8%
Total	58	75.3%	8	10.3%	6	7.7%	5	6.4%

As shown in table 5, there were 24 (31.1%) participants that identified their age as 18 years old or younger, 45 (58.4%) that identified their age as between 19-29 years old, five (6.4%) that identified their age as between 30-39 years old, two (2.5%) that identified their age as between 40-49 years old, and one (1.2%) that identified their age as between 50-59 years old. The treatment group consisted of 21 (27.2%) of the 18 or under 18 years old and 13 (16.8%) of the 19-29 years old. The control group consisted of three (3.8%) of the 18 or under 18 years old, 32 (58.4%) of the 19-29 years old, five (6.4%) of the 30-39 years old, 2 (2.5%) of the 40-49 years old, and one (1.2%) of the 50-59 years old.

Table 5

Participants' Age by Group

	18 0r Under 18		Between 19-29		Between 30-39		Between 40-49		Between 50-59	
	N	%	N	%	N	%	N	%	N	%
Treatment	21	27.2%	13	16.8%	0	0%	0	0%	0	0%
Control	3	3.8%	32	41.5%	5	6.4%	2	2.5%	1	1.2%
Total	24	31.1%	45	58.4%	5	6.4%	2	2.5%	1	1.2%

As shown in Table 6, there were 52 (67.5%) participants that identified themselves as having formal experience working with children leaving 25 (32.4%) of the participants with no formal experience working with children.

Table 6

Participants' Experience Working with Children by Group

	Experience		No Experience	
	N	%	N	%
Treatment	23	29.8%	11	14.2%
Control	29	37.6%	14	18.1%
Total	52	67.5%	25	32.4%

Of the 52 students that identified themselves as having formal experience working with children, seven (13.4%) had worked with children for less than one year, 15 (28.8%) had worked

with children between 1-2 years, 21 (40.3%) had worked with children between 3-5 years, three (5.7%) students had worked with children between 6-9 years, and six (11.5%) students had more than 10 years of experience working with children. The majority of the participants in the control group that reported having formal experience working with children also reported having more years of experience working with children than those students in the treatment group. Please see Table 7.

Table 7

Participants' Years of Experience Working with Children by Group

	Under 1 Year		Between 1-2 Years		Between 3-5 Years		Between 6-9 Years		10 Years or More	
	N	%	N	%	N	%	N	%	N	%
Treatment	4	7.6%	9	17.3%	7	13.4%	1	1.9%	2	3.8%
Control	3	5.7%	6	11.5%	14	26.9%	2	3.8%	4	7.6%
Total	7	13.4%	15	28.8%	21	40.3%	3	5.7%	6	11.5%

The 52 participants who identified formal experience working with children listed the following experience: working in a church based program; babysitting; substitute teaching in an elementary education classroom; mentoring in an education program where they worked with elementary students while completing a high school course; being involved in instructing recreational activities such as tumbling, soccer, swimming, and little league; and working in a child care center. Please see Table 8.

Table 8

Participants' Type of Experience Working with Children by Group

	Church Based		Babysitting		Substitute Teacher		Education/ Mentor Program		Recreational Instructor		Child Care Center	
	N	%	N	%	N	%	N	%	N	%	N	%
Treatment	3	5.7%	6	11.5%	0	0%	8	15.3%	4	7.6%	3	5.7%
Control	4	7.6%	2	3.8%	1	1.9%	6	11.5%	5	9.6%	10	19.2%
Total	7	13.4%	8	15.3%	1	1.9%	14	26.9%	9	17.3%	13	25%

As shown in Table 9, out of the 77 participants there were 13 students that did not complete the posttest. Out of the 34 participants in the treatment group, there were three students that withdrew before completing the posttest. All three students changed career fields and were not interested in continuing in education. Out of the 43 participants in the control group, there were ten students that did not complete the posttest. Of the ten students in the control group that did not complete the posttest, one student changed majors within the education department, one student had family issues that prevented the attendance of class, one student obtained a full time job which prevented class attendance, two students changed their major to a non-education related field, one student had a criminal background that prevented the ability to complete observations, two students were failing the course which lead to their withdrawal, and two students did not complete the Teacher Sense of Efficacy Scale. The participants who did not complete the posttest were not included in the results for this study. The results of this study are based on the data of the 64 students that completed the posttest Teacher Sense of Efficacy Scale.

Table 9

Participants' Completion of Posttest

	Original Participants		Completed Posttest	
	N	%	N	%
Treatment	34	44.1%	31	40.2%
Control	43	55.8%	33	42.8%
Total	77	100%	64	83.1%

Mean and standard deviation for the first dependent variable (student engagement posttest score on the Teacher Sense of Efficacy Scale) are located in Table 10. There was little difference between the mean and standard deviation of the student engagement posttest scores on the Teacher Sense of Efficacy Scale between students in the treatment group who completed video based observations (M = 59.48, SD = 7.22, n = 31) and students in the control group who completed traditional observations (M = 58.78, SD = 7.22, n = 33).

Table 10

Participants' Student Engagement Posttest Scores

Variable	N	Mean	SD
Treatment	31	59.48	7.81
Control	33	58.78	7.22

Mean and standard deviation for the second dependent variable (instructional strategies posttest score on the Teacher Sense of Efficacy Scale) are located in Table 11. There was also

little difference between the mean and standard deviation of the instructional strategies posttest scores on the Teacher Sense of Efficacy Scale between students in the treatment group who completed video based observations (M = 58.09, SD = 7.79, n = 31) and students in the control group who completed traditional observations (M = 58.63, SD = 7.21, n = 33).

Table 11

Participants' Instructional Strategies Posttest Scores

Variable	N	Mean	SD
Treatment	31	58.09	7.79
Control	33	58.63	7.21

Mean and standard deviation for the third dependent variable (classroom management posttest scores on the Teacher Sense of Efficacy Scale) are located in Table 12. There was additionally little difference between the mean and standard deviation of the classroom management posttest scores on the Teacher Sense of Efficacy Scale between students in the treatment group who completed video based observations (M = 58.93, SD = 7.33, n = 31) and students in the control group who completed traditional observations (M = 59.15, SD = 6.86, n = 33).

Table 12

Participants' Classroom Management Posttest Scores

Variable	N	Mean	SD
Treatment	31	58.93	7.33
Control	33	59.15	6.86

Box and Whisker plots were used to look for extreme outliers for each dependent variable (Rovai, et al., 2013, p.174). The Box and Whisker plots for the treatment and control group student engagement posttest scores on the Teacher Sense of Efficacy Scale shows there are no outliers present. Please see Figure 1. The Box and Whisker plots for the treatment and control group instructional strategies posttest scores on the Teacher Sense of Efficacy Scale shows there are no outliers present. Please see Figure 2. The Box and Whisker plots for the treatment and control group classroom management posttest scores on the Teacher Sense of Efficacy Scale shows there are no outliers present. Please see Figure 3.

Figure 1

Boxplot of Student Engagement Posttest Scores

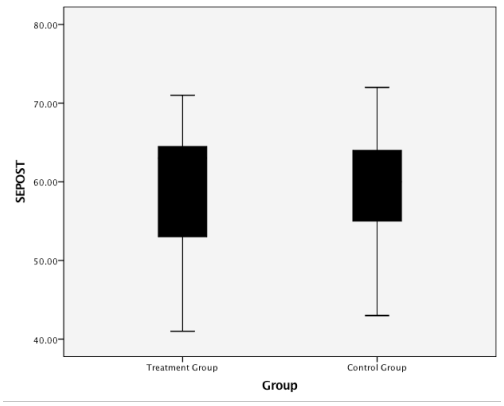


Figure 2

Boxplot of Instructional Strategies Posttest Scores

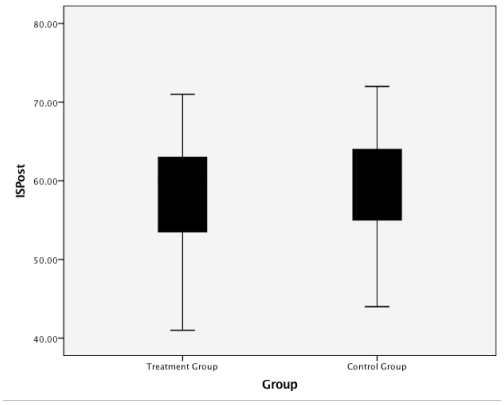
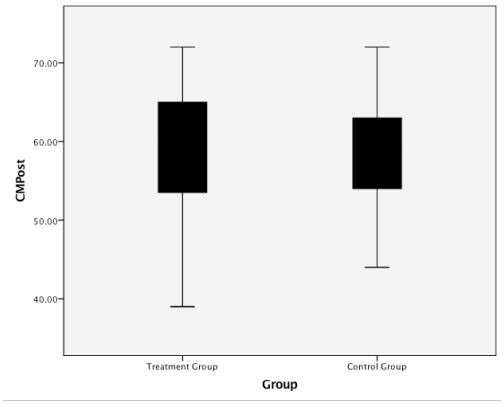


Figure 3

Boxplot of Classroom Management Posttest Scores



The assumption of normality was tested using Kolmogorov-Smirnov test. The Kolmogorov-Smirnov was used since there were more than 50 participants in this study (Rovai, et al., 2013, p.213). Based on the significance level for the treatment group student engagement posttest Teacher Sense of Efficacy Scale scores, $p = .002$, normality cannot be assumed. However, based on the normal distribution curve observed in the histogram in Figure 4, normality can be assumed (Rovai, et al., 2013, p.65). Based on the significance level for the control group student engagement posttest Teacher Sense of Efficacy Scale scores, $p = .200$,

normality can be assumed. Please see Table 13. Based on the significance levels for the treatment group, $p = .200$, and control group, $p = .200$, instructional strategies posttest Teacher Sense of Efficacy Scale scores, normality can be assumed. Please see Table 14. Based on the significance levels for the treatment group, $p = .200$, and control group, $p = .200$, classroom management posttest Teacher Sense of Efficacy Scale scores, normality can be assumed. Please see Table 15.

Table 13

Test of Normality for Student Engagement

		Kolmogorov-Smirnov		
	Group	Statistic	df	Sig.
Student Engagement	Treatment Group	.207	31	.002
	Control Group	.105	33	.200

Figure 4

Histogram of Treatment Group Student Engagement Posttest Scores

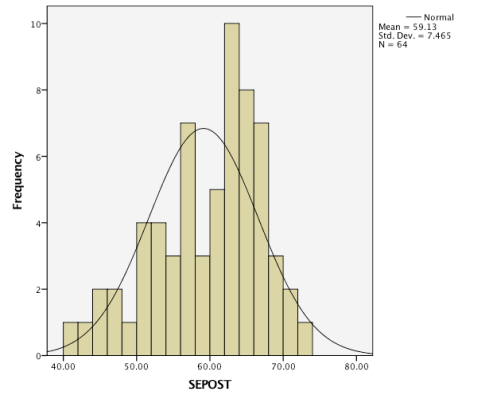


Table 14

Test of Normality for Instructional Strategies

		Kolmogorov-Smirnov		
	Group	Statistic	df	Sig.
Instructional Strategies	Treatment Group	.113	31	.200
	Control Group	.090	33	.200

Table 15

Test of Normality for Classroom Management

		Kolmogorov-Smirnov		
	Group	Statistic	df	Sig.
Classroom Management	Treatment Group	.090	31	.200
	Control Group	.091	33	.200

The assumption of equal variance was tested using Levene's Test of Equality of Error Variance. Levene's Test of Equality of Error Variance is appropriate to use as the participants represented random groups and independent samples were being measured on one variable (Rovai, et al., 2013, p.289). Based on the results, of the Levene's Test of Equality, equal variance can be assumed for student engagement, $p = .57$, instructional strategies, $p = .59$, and classroom management, $p = 80$. Please see Tables 16, 17, and 18.

Table 16

Assumption of Equality for Student Engagement

	Levene's Test of Equality of Variances	
	F	Sig.
Student Engagement	.330	.567

Table 17

Assumption of Equality for Instructional Strategies

	Levene's Test of Equality of Variances	
	F	Sig.
Instructional Strategies	.292	.591

Table 18

Assumption of Equality for Classroom Management

	Levene's Test of Equality of Variances	
	F	Sig.
Classroom Management	.067	.797

Results

Null Hypothesis One

An independent-samples *t* test was used to analyze the first Null Hypothesis of no difference between the student engagement posttest Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based

observations. A Bonferroni correction was used to control for Type 1 errors (Rovai, et al., 2013, p.265). Based on the Bonferroni correction, the significance level of .016 was used. The significance level of .016 was obtained by dividing the usual effect size of .05 by three since three dependent variables were used in this study (.05/3=.016) (Rovai, et al., 2013, p.265). The results were not statistically significant, $t(62) = .370$, $p = .713$, indicating that there is no significant difference in the student engagement posttest scores on the Teacher Sense of Efficacy Scale between students who completed traditional field observation ($M = 58.78$, $SD = 7.22$, n = 33) and those who completed video based observations ($M = 59.48$, $SD = 7.22$, n = 31). The 98.4% confidence interval for the difference between the means was -3.960 to 5.352. Therefore, the analysis failed to reject the null hypothesis.

Null Hypothesis Two

An independent-samples *t* test was used to analyze the second Null Hypothesis of no difference between the instructional strategies posttest Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based observations. A Bonferroni correction was used to control for Type 1 errors (Rovai, et al., 2013, p.265). Based on the Bonferroni correction, the significance level of .016 was used. The significance level of .016 was obtained by dividing the usual effect size of .05 by three since three dependent variables were used in this study (.05/3=.016) (Rovai, et al., 2013, p.265). The results were not statistically significant, $t(62) = -.288$, $p = .775$, indicating that there is no significant difference in the instructional strategies posttest scores on the Teacher Sense of Efficacy Scale between students who completed traditional field observation (M = 58.63, $SD = 7.21$, n = 33) and those who completed video based observations ($M = 58.09$, $SD = 7.79$, n = 31).

The 98.4% confidence interval for the difference between the means was -5.186 to 4.107. Therefore, the analysis failed to reject the null hypothesis.

Null Hypothesis Three

An independent-samples *t* test was used to analyze the third Null Hypothesis of no difference between the classroom management posttest Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based observations. A Bonferroni correction was used to control for Type 1 errors (Rovai, et al., 2013, p.265). Based on the Bonferroni correction, the significance level of .016 was used. The significance level of .016 was obtained by dividing the usual effect size of .05 by three since three dependent variables were used in this study (.05/3=.016) (Rovai, et al., 2013, p.265). The results were not statistically significant, $t(62) = -.122$, $p = .904$, indicating that there is no significant difference in the classroom management posttest scores on the Teacher Sense of Efficacy Scale between students who completed traditional field observation ($M = 59.15$, $SD = 6.86$, n = 33) and those who completed video based observations ($M = 58.93$, $SD = 7.33$, n = 31). The 98.4% confidence interval for the difference between the means was -4.181 to 4.181. Therefore, the analysis failed to reject the null hypothesis.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

The purpose of this study was to compare the change in a preservice teachers' sense of teaching efficacy based on the type of field observations they completed, as measured by the Teacher's Sense of Efficacy Scale long form, in the education department of a community college in the Mid-Atlantic region of the United States. This final chapter includes a summary of the study findings, a discussion of the findings of the study, limitations of the study, and implications and recommendations for future studies.

The field experiences in teacher education programs provide a critical opportunity for preservice teachers to develop a strong sense of teacher efficacy and apply the knowledge learned in coursework in an authentic setting (Rich & Hannafin, 2009). However, often with traditional field experiences there is a lack of connection between what is being taught in the college classroom and what is being observed in the elementary classroom (Greenberg, et al., 2011; Wilson et al., 2001). In traditional field experiences, the preservice teacher is placed in an elementary classroom with one teacher for the duration of the experience. The college instructor has limited to no knowledge of what the preservice teacher is observing. It is important that instructors in teacher education programs are able to provide a curriculum that scaffolds the introduction of pedagogical concepts and preservice teachers' ability to understand and apply concepts. In addition, what preservice teachers are viewing in the elementary classroom does not always correlate with what they are being taught in the college classroom (Girod & Girod, 2008). As an alternative to traditional field experiences, some teacher education programs are implementing video based observations (Angelici & Santagata, 2010). Video observation refers to a preservice teacher watching pre-recorded video footage of an elementary education

classroom instead of observing face-to-face. This allows the college instructor to simultaneously view what the preservice teachers are viewing and provide instructional guidance and dialogue that help the preservice teachers to focus on the crucial instructional elements within the videos and make essential connections between what is being viewed and what is being learned in coursework (Angelici & Santagata, 2010). Learning how to distinguish what is important in a teaching scenario is a skill with which emergent teachers need assistance and practice to acquire (van Es & Sherin, 2002).

Research completed by Santagata, Zannoni, and Stigler (2007) as well as Star and Strickland (2008) demonstrated that when preservice teachers view classroom teaching through video observations, they are better able to understand teacher practices, learn how to observe the way students think, and observe quality instructional techniques that may not be observed in a traditional field experience (Angelici & Santagata, 2010).

The present study extends research in this area by investigating if the type of field experience a preservice teacher completes, whether traditional or face-to-face, has an impact on their self efficacy regarding their ability to implement student engagement, instructional strategies, and classroom management as measured by the Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001). Preservice teachers enrolled in an introduction to elementary education course at a community college in the Mid-Atlantic region of the United States were the focus of this quasi-experimental design study. The treatment group was preservice teachers who completed five hours of video based observations. The control group was preservice teachers who completed five hours of traditional observations in an elementary

school classroom. Students were asked to complete the Teacher Sense of Efficacy Scale after having completed the required observation hours.

Null Hypothesis One

For null hypothesis one, there was not a significant difference between the student engagement posttest Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based observations. The findings of this study are in keeping with literature that suggests video observations can be used as an alternative to traditional field experiences (Angelici & Santagata, 2010). Fieldwork experiences provide a crucial opportunity for preservice teachers to reflect on and apply what is being learned in coursework with what is being observed in an elementary classroom (Posner & Vivian, 2010). Whether preservice teachers are observing in an actual classroom or they are watching prerecorded videos of a classroom, they are being provided with experiences that allow them to learn from a professional in the field who is modeling appropriate student engagement strategies. In traditional and video-based field experiences, preservice teachers are being given the opportunity to start to think and feel like teachers (Hixon & Hyo-Jeong, 2009, p.294).

Null Hypothesis Two

For null hypothesis two, there was not a significant difference between the instructional strategies posttest Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based observations. The findings of this study are in keeping with literature that suggests when preservice teachers are supervised and guided by the course instructor, there is a greater impact on their learning (Feuer et al., 2013). Field experiences, whether traditional or video-based, provide opportunities for preservice teachers to learn, develop, and refine skills learned in coursework through personal reflections

and application. When the instructor is able to act as a guide, preservice teachers are better able to identify what matters most in the teaching scenario (Angelici & Santagata, 2010). For example, the use of video observations allows the preservice teachers to participate in discussions not only with the course instructor but also their peers, which helps them to become more reflective and analytical observers (Wong et al., 2006). When video observations are used, the instructor is able to lead a class discussion identifying what instructional strategies seemed successful and which ones did not in the identified video segment. Peer discussions can also reflect on what could be done differently to alter a negative or positive teaching situation. Such discussions allow preservice teachers to have experiences that help them reflect and apply course content in order to feel prepared to meet the needs of their future classroom.

Null Hypothesis Three

For null hypothesis three, there was not a significant difference between the classroom management posttest Teacher Sense of Efficacy Scale scores of participants who completed traditional field observation and those who completed video based observations. The findings of this study are in keeping with literature that suggests video observations allow the preservice teachers to see different teaching styles being implemented in different teaching scenarios and with a diverse student population, which is an important element in providing effective learning experiences for preservice teachers (Hixon & Hyo-Jeong, 2009). Video based observations provide preservice teachers with multiple opportunities to see classroom management strategies being implemented in a variety of settings. Video based observations also provide the instructor with an opportunity to guide preservice teachers in reflecting on their own classroom management practices. Such discussions are crucial in providing an opportunity for preservice teachers to refine and expand upon their own skills and make necessary connections between

what is being learned in coursework and feeling prepared to implement successful classroom management in their future classroom.

Conclusions

As noted, there are more than 1,400 institutions of higher education that have the task of preparing teacher candidates for the responsibilities of their future classrooms (Greenberg, Pomerance, & Walsh, 2011). Teacher education programs seek to develop a comprehensive curriculum that will prepare future educators with the ability to successfully manage a classroom while promoting student engagement and academic success (Greenberg et al., 2011). One crucial component of all teacher education program curricula is the fieldwork teaching experience.

The fieldwork experience provides an opportunity for students to have hands on application of the content they are learning in college coursework in an authentic setting (Mullen, Beilke, & Brooks, 2008). However, as a result of limitations of the traditional fieldwork experience, traditional observations often do not meet the preservice teachers' needs in order to become confident education professionals (Girod & Girod, 2008). Some teacher education programs have implemented the practice of using video based observations but more research is needed to investigate if video based options are a viable alternative to traditional face-to-face observations.

The findings of this research study agree with those conducted by Santagata, Zannoni, and Stigler (2007) as well as Star and Strickland (2008) positing that video observations can be used as a successful alternative to traditional observations (Angelici & Santagata, 2010). With the use of video observations, the college instructor is able to view what is being observed by the preservice teachers, which allows the instructor to provide meaningful discussions in class

providing opportunities for the preservice teachers to make essential connections between what is being learned in coursework and what is being viewed during the observations. van Es and Sherin (2002) suggested the use of video observations can help preservice teachers to understand student thinking, the teacher's role in the classroom, and how classroom interactions impact teaching. Learning how to notice the important elements in a teaching situation is a skill with which most emergent teachers need assistance and practice in acquiring (van Es & Sherin, 2002). This is demonstrated in the outcome of this study. As stated by Kennedy, Cavannaugh, and Dawson (2013) the key to a successful field experience involves the inclusion of coursework plus the ability to apply coursework in the field.

The use of videos provides preservice teachers with opportunities to view various teaching environments, the ability to view a particular problem or event, and aids preservice teachers in making connections between different instructional strategies (Wang & Hartley, 2003). The opportunities provided by using videos allows preservice teachers to better understand teaching practices, student thinking and engagement, classroom management, and quality instructional techniques (Angelici & Santagata, 2010). Video observations also allow for the repeated viewing of a teacher and/or student conversation or incident (Wong et al., 2006).

As noted, the use of videos in teacher education programs is supported by a social constructivist view of learning (Wong et al., 2006). When video observations are used the college instructor is able to act as a guide to students who are on the brink of understanding a new concept (Rieber & Noah, 2008, p.90). Often, the reason preservice teachers are not successful in acquiring the necessary skills and understanding from a field experience is because they have not yet developed the knowledge base in order to apply and connect what they have learned in coursework with what they are viewing in the actual classroom (Hixon & Hyo-Jeong,

2009; Israel et al., 2009). Video observations allow college instructors to provide crucial additional support for students who are not able to fully comprehend and master the course content without the additional assistance and support of the experienced professional and the opportunity to work with others (Rieber & Noah, 2008).

One drawback to video observations is that preservice teachers are not physically or emotionally connected to the elementary classrooms (Dawson, 2006). Fieldwork experiences provide an intrinsic motivation for preservice teachers, as they are able to develop personal relationships and emotional connections with students and other educators (Dawson, 2006; Hixon & Hyo-Jeong, 2009). Using video observations may limit preservice teachers' opportunities to develop the emotional and physical connections needed in order to develop intrinsic motivation. Many preservice teachers are anxiously looking forward to observations in the actual classrooms (Hixon & Hyo-Jeong, 2009). Most preservice teachers enjoy the interactions between the students and teachers as well as experiencing the school environment during field experiences. The use of simulated experiences may create a feeling of detachment between the preservice teacher and the classroom setting and they may feel like they have missed an opportunity to be in the authentic setting (Hixon & Hyo-Jeong, 2009). Based on the literature reviewed and data analyzed for this research, teacher education programs should explore the use of video based observation and traditional observations. Video based observations in introductory education courses would decrease the demand of the number of students being placed in traditional schools. Using traditional observations in the post-introductory education course would allow the preservice teachers to form the crucial emotional and physical attachments to the school and classroom. Observations provide an opportunity for preservice teachers to become involved in the school setting and an opportunity to start to think and feel

like teachers, before the completion of the final student teaching (Hixon & Hyo-Jeong, 2009, p.294).

Whether traditional or video based observations are used, it is important for teacher education programs to require field experiences early in the program requirements (Watson et al., 2011). The completion of field experiences early in a teacher education program provides preservice teachers with time and practice to decide if teaching is indeed a correct personal career choice (Hixon & Hyo-Jeong, 2009, p.294). Video based observations provide an alternative to programs who may be struggling to implement and facilitate quality observation experiences for students. Video observations can be implemented early in a teacher education which will provide preservice teachers with the needed exposure to an education classroom and lay the foundation for greater understanding in future traditional observations.

The small sample size in this research had limited diversity. Therefore, the findings may not be generalized across different populations of samples or accurately represent all preservice teachers at all community colleges. However the data from this study and literature on this topic suggest preservice teachers have greater understanding of practical practices when provided with opportunities to generate questions and use resources to research and apply what is being learned in coursework with what is being observed in field work (Dawson & Fichtman-Dana, 2007). When video based observations are used, preservice teachers are more engaged in course instruction and observations, observe more proficient classroom teachers, and are able to benefit from having shared learning experiences with their peers which comprises the needed elements of a quality field experience (Fadde, 2012; Hixon & Hyo-Jeong, 2009). Video based observations should be viewed as an effective addition to traditional observations in increasing

the teacher self-efficacy of preservice teachers in the areas of student engagement, instructional strategies, and classroom management as measured by the Teacher Sense of Efficacy Scale.

Implications

This study provides data that suggest video-based observations can be used as an alternative to traditional observations in teacher education programs. When obstacles such as lack of enough placement sites or inability to secure placement in schools for traditional observations are presented, programs of teacher education should view video observations as a viable alternative. With the increased security measures and placement requirements that school districts are now implementing, placing preservice teachers into schools for traditional observations is a time consuming process. The use of video observations allows preservice teachers to complete observations early on in introductory education coursework while the placement process for traditional observation can be started. Using video observations provides an opportunity for the course instructor to provide guidance to the preservice teachers and enables the preservice teachers to make essential connections between coursework and what is being observed in the elementary classroom. Being provided with more guidance from the course instructor and early observation experiences, should enable the preservice teacher to have greater understanding when provided with the opportunity to complete traditional observations.

Future research and continued exploration to determine if the type of field experience a preservice teacher completes impacts their perception of teaching self-efficacy could assist colleges of teacher education in designing appropriate curricula that comprise the elements needed for preservice teachers to feel confident in implementing effective classroom management, instructional strategies, and student engagement (Guernsey & Ochshorn, 2011; Brown, 2000). It is hoped that the findings of this research will assist teacher education programs

in designing and implementing curriculum components that support preservice teachers in developing the skills needed to be successful teachers in their future classrooms (Guernsey & Ochshorn, 2011). Additional research should be conducted to determine if preservice teachers who completed video based observations developed a stronger sense of teaching efficacy and greater pedagogical understanding.

Limitations

There were several limitations to this research study. First, the researcher met with the instructor to review and verify fidelity of the procedures and curriculum but was not present while instruction was being implemented. Therefore, the instructor may or may not have adapted the curriculum for one or both sections. Another limitation of the study was how participants scored themselves on the Teacher Sense of Efficacy Scale. It is assumed the participants scored themselves honestly, but students may have scored themselves higher causing unavoidable bias. Although this could be further analyzed by interviews or open-ended questions, an in depth analysis of this type is beyond the scope of this study. However, additional factors other than the treatment could have impacted the posttest scores. The treatment group was also a part of a learning community which means that students not only had the introduction to education course together they also had a reading course together. Since the students had another course together, the gains in teacher efficacy may have been from experiences not directly related to the type of observations completed. There were three dropouts from the treatment group and ten dropouts from the control group which could have impacted the outcome of this study as the drop outs pose a threat to selection and further reduce the sample size used in this study. In addition, the sample size was relatively small with limited diversity. The small sample size with limited diversity means the findings may not be generalized across different populations of samples and

may not be an accurate representation of all preservice teachers at all community colleges. Finally, since the study measured only self-efficacy of preservice teachers, the findings should not be generalized across other areas.

Recommendations for Future Research

Although the use of video-based observations experiences has become prevalent in teacher education programs, little is known regarding how preservice teachers view the use of video observations and whether preservice teachers perceive that video observations increase their ability to implement and facilitate the learning of their future students (Girod & Girod, 2008; Angelici & Santagata, 2010). Although the findings of this study are limited, more research should be conducted regarding the use of video-observations in developing a preservice teacher's sense of efficacy (Israel et al., 2009). For example, a study conducted by the National Council on Teacher Quality (2011) declares the need for more research to be conducted regarding the various components of teacher education programs and urges for comparisons to be made between the different instructional techniques that are commonly used in teacher education curriculum (Greenberg et al., 2011). While the present study findings suggest that video observations can be used as an effective alternative to traditional observations in improving preservice teachers' sense of efficacy regarding classroom management, instructional strategies, and student engagement there are several limitations to the study and the topic should continue to be explored. This study sought to explore if the type of observations completed impacts preservice teachers' sense of efficacy regarding implementing student engagement, classroom management, and instructional strategies. There is a need for more research on how the types of experiences, including observations, in teacher education programs impact future teachers teaching practices (Greenberg et al., 2011; Wilson et al., 2001).

The present study found that video observations are an effective alternative to the use of traditional observations in increasing preservice teachers' sense of teaching efficacy regarding implementing instructional strategies, student engagement, and classroom management. However, the commonly used components of teacher education programs and how they impact preservice teacher's sense of teaching efficacy remain in need of further investigation. Therefore the recommendations of the study are for teacher education programs to continue to research the commonly used types of fieldwork experiences and how the type of field experience completed impacts preservice teachers' sense of teaching efficacy and their ability to manage their future classrooms.

Conclusions in this study were drawn from the data collected from a posttest of the Teacher Sense of Efficacy Scale, demographic information collected in the beginning of the study, independent-samples *t* tests, Box and Whisper Plots, Leven's Test of Equality, and Kolmogorov-Smirnov tests. Discoveries were made regarding if the type of observation a preservice teacher completes impacts their teacher sense of efficacy regarding their ability to implement student engagement, instructional strategies, and classroom management. The hope of this researcher is that video observations will continue to be explored as an effective type of field experience in teacher education programs which can be utilized to introduce pedagogical concepts to preservice teachers. Most importantly, teacher education programs must continue to provide a comprehensive curriculum that will give these future educators the confidence, experience, and knowledge needed to reach the minds and hearts of their future students.

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APPENDIX A

Long form of the Teachers' Sense of Efficacy Scale is located at http://anitawoolfolkhoy.com/wp-content/uploads/2015/04/TSES-scoring-zted8m.pdf.

APPENDIX B

Permission letter from the developer of the Teachers' Sense of Efficacy Scale to use the form in research is located at

http://anitawoolfolkhoy.com/wp-content/uploads/2014/09/permission-letter-18p6bcg.pdf.

APPENDIX C

Recruitment letter for participants.

Date: November 23, 2014

Dear Students:

As a graduate student in the Education Department at Liberty University, I am conducting research as part of the requirements for a Doctorate in Education degree. The purpose of my research is to assist colleges of teacher education in designing appropriate curriculum components that improve preservice teachers' self-efficacy in implementing effective classroom management and instructional- and student-engagement strategies, and I am writing to invite you to participate in my study.

If you are enrolled in [redacted] and are willing to participate, you will be asked to complete a brief survey regarding your perception of your abilities to implement classroom management, instructional strategies, and student engagement. You will be asked to complete the survey before and after completing your observation assignment. It should take approximately 15 minutes or less for you to complete the procedure[s] listed. Your participation will be completely anonymous, and no personal, identifying information will be required.

To participate, complete and return the consent document to your instructor. Your instructor will provide you with the survey to complete before and after starting your observation assignment.

A consent document is attached to this letter. The consent document contains additional information about my research. Please sign the consent document and return it to your instructor to indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

Debra Chisenhall
Ed.D. Candidate, Liberty University

APPENDIX D

Informed consent letter for participants.

CONSENT FORM

PRESERVICE TEACHERS' SENSE OF EFFICACY:
VIDEO vs. FACE-TO-FACE OBSERVATIONS

Debra Chisenhall
Liberty University
Education Department

You are invited to be in a research study of preservice teachers' thoughts regarding observations. You were selected as a possible participant because you are enrolled in an introductory elementary education course. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Debra Chisenhall, Ed.D. Candidate, Liberty University.

Background Information:

The purpose of this study is to compare if the type of observations a preservice teacher completes has an impact on his or her thoughts about teaching.

Procedures:

If you agree to be in this study, I would ask you to do the following things:

- Complete a survey regarding your thoughts about teaching before you complete your observations. The survey should take around 15 minutes or less to complete.
- Complete a survey regarding your thoughts about teaching after you complete your observations. The survey should take around 15 minutes or less to complete.
- Potentially be part of a class that watches videos of classroom teaching.

Risks and Benefits of being in the Study:

The risks of participating in this study are no more than you would encounter in everyday life. It is unlikely that you would experience any risks associated with participating in this research.

There are no direct benefits for the participants in this study.

Compensation:

You will not receive payment or be compensated for participating in this research.

Confidentiality:

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records.

Voluntary Nature of the Study:
Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Delaware Tech. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.
Contacts and Questions:
The researcher conducting this study is Debra Chisenhall. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] or [redacted]
You may also contact the faculty advisor for this study. The faculty advisor is Dr. Kenneth Tierce. His contact information is [redacted] or [redacted]

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at irb@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: _____ Date: _____

APPENDIX E

Initial survey with student identification and demographic information.

Student Identification Code: _____ (to be completed by researcher)

The following is to be completed by the research participant.

Please answer the following questions placing a check mark next to your answer.

What is your gender?

_____ male _____ female

What category best describes your age?

_____ under 18

_____ between 19-29

_____ between 30-39

_____ between 40-49

_____ between 50-59

_____ 60 or over 60

What is your ethnicity?

_____ African American

_____ Asian

_____ Caucasian

_____ Hispanic

_____ Native American

_____ Pacific Islander

_____ Other – Please list _____

Do you have experience working with children in a formal setting? Do not include working with your own children.

_____ yes _____ no

If you answered yes, please list your experience working with children in a formal setting.

_____

If you answered yes, please indicate the number of years you have experience in working with children in a formal setting.

_____ under 1 year _____ between 1-2 years _____ between 3-5 years

_____ between 6-9 years _____ 10 years or more than 10 years

APPENDIX F

Note taking charts completed by students in treatment group.

EDC 150 Video Observations Note Taking Chart

As you watch the videos, please make notes on specific teacher-student interactions and how children respond.

[redacted]	[redacted]	Notes
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]		
[redacted]		

Dimension	Videos	Notes
[redacted]	[redacted]	
[redacted]		
[redacted]		
[redacted]		

EDC 150 Video Observations Note Taking Chart

As you watch the videos, please make notes on specific teacher-student interactions and how children respond.

Dimension	Videos	Notes
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	

Dimension	Videos	Notes
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	

Dimension	Videos	Notes
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	

EDC 150 Video Observations Note Taking Chart

As you watch the videos, please make notes on specific teacher-student interactions and how children respond.

Dimension	Videos	Notes
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]		
[redacted]		

Dimension	Videos	Notes
[redacted]	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	

EDC 150 Video Observations Note Taking Chart

As you watch the videos, please make notes on specific teacher-student interactions and how children respond.

Dimension	Videos	Notes
[redacted]	[redacted]	

Dimension	Videos	Notes

APPENDIX G

Schedule for the video observations completed by the treatment group.

Schedule for Video Observations

Week	Dimension
Week 1	[redacted]
Week 2	[redacted]
Week 3	[redacted]
Week 4	[redacted]

APPENDIX H

Directions for participants.

Dear Student,

You will be completing five hours of video observations. You will need to have access to a computer with updated software and reliable high speed internet. If you do not have access to an updated computer and reliable high speed internet off campus, it is recommended you view the videos on a computer on campus. Computers are available for your use in the Library and Computer Lab (remember to take your student ID and headphones).

While you are viewing the videos, you should take notes on the [redacted] Video Observation Note Taking Chart provided by your instructor. Be sure to make notes on specific teacher-student interactions and how children respond in each video segment. Remember to complete [redacted] questions at the end of each dimension.

Below are the directions from [redacted] regarding how to access the Video Library.

[redacted]

Once you have logged in to your account, you will see the heading "Video Library". Below are the steps to take after you have logged in.

- Underneath of the heading [redacted] you will see a link for [redacted]
- Click on the link.
- A new page will appear. Click on the name of any video on this page. (It does not matter which vide you click on.)
- You will now see a chart on the right side of the computer screen that lists each of the dimensions that will be viewed.
- After you click on the title of a dimension, all of the videos for that dimension will be appear on the left side of the computer screen.
- Please watch all of the video segments for each dimension and complete the note taking chart.

Please contact your instructor if you have any questions or concerns.

APPENDIX I

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

February 12, 2015

Debra Chisenhall
IRB Exemption 2042.021215: Preservice Teachers' Sense of Efficacy: Video vs Face-to-Face Observations

Dear Debra,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application and no further IRB oversight is required.
Your study falls under exemption category 46.101(b)(1, 2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

> (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
> (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
> (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.
If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

[redacted]

LIBERTY
UNIVERSITY.

Liberty University | Training Champions for Christ since 1971

1971 UNIVERSITY BLVD. LYNCHBURG, VA. 24515 IRB@LIBERTY.EDU FAX (434) 522-0506 WWW.LIBERTY.EDU

APPENDIX J

Check box that applies:

☑Doctoral Dissertation ☐Master's Thesis ☐Course Project/Research Paper ☐Other-Specify:_____

RESEARCH APPROVAL REQUEST

[redacted] *employees seeking to use College time, data, and/or staff/student participation in research projects related to graduate course work, degree attainment, or grant research are required to complete this form describing the purpose of the study, the benefit to the College, the resources needed to complete the project, and the protocol that will be used to ensure the ethical and fair treatment of study participants.*

To be considered for approval, the research request must be comprised of one of the following (check all that apply for your proposal):

✓ *Research including surveys, interviews, or observation of each participant's behavior.*
✓ *Research conducted in established educational settings involving normal educational practice such as comparison among curricula, instructional strategies, or classroom management techniques.*
_____ *Research involving the use of educational tests.*
_____ *Research involving the collection or study of existing data, documents, and records.*

In addition, the research must meet all of the following conditions:

I) No treatment is associated with participants in the investigation;
II) Appropriate procedures are established to ensure anonymity in the research;
III) Confidentiality is clearly explained in an informed consent form for participants; and
IV) Participants are exposed to no more than the minimum risk.

Moreover, applicants must attach copies of the Institutional Review Board approval and/or exemption from the degree granting institution to this Research Approval Request Form in order for such research requests to be considered for approval by the Associate Vice President for Academic Affairs.

Updated September 26, 2013

The employee's dean/director and the Campus Director must approve the request before it is forwarded to the Associate Vice President for Academic Affairs in the Office of the President for final approval.

EMPLOYEE NAME: [redacted]

EMPLOYEE EMAIL & PHONE NUMBER: [redacted]

TITLE OF STUDY: PRESERVICE TEACHERS' SENSE OF EFFICACY: VIDEO vs. FACE-TO-FACE OBSERVATIONS

INSTITUTION ATTENDING: Liberty University

FACULTY SPONSOR NAME, DEPARTMENT, & CONTACT INFO: [redacted]

CO-INVESTIGATORS (IF APPLICABLE): _____

Updated September 26, 2013

APPROVAL PAGE

[redacted] *supports thoughtful, valid research designed to benefit the College and its students. However, the College is in no way obligated to approve research requests. Approval will be determined by 1) the study's potential benefit to the College and 2) the human and financial resources available for the level of support requested. Therefore, the decision of the Associate Vice President for Academic Affairs is final and non-appealable. In no instance shall research approval be granted to an individual who is not an employee of* [redacted]

It is the employee's responsibility to move the application through the signature process. Once you obtain the signatures of your Director/Dean and Campus Director, please allow two weeks for the application to be reviewed by Academic Affairs. Once approved, the employee will be notified via email and a signed PDF of the application will be attached. Hard copies of approved applications will be filed and stored in Academic Affairs, Office of the President.

[redacted] [redacted]

DEAN/DIRECTOR **DATE**

[redacted] [redacted]

VICE PRESIDENT/CAMPUS DIRECTOR **DATE**

[redacted] [redacted]

ASSOCIATE VICE PRESIDENT FOR ACADEMIC AFFAIRS **DATE**

Updated September 26, 2013

APPENDIX K

Student	Type	Gender	Age	Ethnicity	Experience	YrsExp	SEPre	SEPost	ISPre	ISPost	CMPre	CMPost