PERCEIVED FACTORS OF A QUALITY STUDENT TEACHING EXPERIENCE

A Dissertation
by
JUSTIN O'NEILL MITCHELL

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Abstract

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TEACHING EXPERIENCE

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The purpose of this study was to examine the perceptions of student teachers and university supervisors regarding four factors that contribute to a quality student teaching experience: mentor teacher, university supervisor, clinical environment, and student teacher. Data in this concurrent mixed method study were collected from student teachers and university supervisor using surveys and focus groups. Data were collected from surveys and focus groups concurrently, analyzed separately, and merged for interpretation. Of all four factors, the mentor teacher was identified as the most important factor in a quality student teaching experience. Four other primary conclusions relate to the most important attributes of each factor that contribute to a quality student teaching experience. The implications of this study confirm the need for appropriate selection and preparation of mentor teachers, faculty in clinical environments, and university supervisors in order to offer the highest quality student teaching experience.

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Chapter 1: Introduction to the Study

Fantilli and McDougall (2009) contend that 40-50% of American teachers leave the classroom after less than five years of teaching. Darling-Hammond (2010a) argues that this exodus is due to the lack of preparation for the daily realities of the classroom. In organizations such as Teach for America, there is less emphasis on pedagogy and specialized preparation and a stronger emphasis on content knowledge. Teacher education researcher Darling-Hammond (2006) suggests that content knowledge alone does not make a teacher effective, but rather that the balance between content knowledge and understanding of pedagogy is essential. Regardless of the position, there is a consensus that changes are necessary in teacher preparation programs. Wiens (2012) argues the following:

> Voices from outside and inside the teacher preparation establishment have been loudly calling for changes in how we prepare teachers. These critics argue that the system is broken, and major changes are required to ensure that our nation's children are prepared for the future. (pp. 257-258)

One component of teacher preparation programs that often receives scrutiny is the perceived gap between theory, what student teachers experience in their coursework, and practice, what they experience in the field. In 2010, the National Council for the Accreditation of Teacher Education (NCATE) called for teacher education in the United States (US) to "be turned upside down… [in order to] shift away from a norm which emphasizes academic preparation and course work loosely linked to school-based practice experience. It must move to programs that are fully grounded in clinical practice" (p. ii). Researchers (Flessner, 2012;

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Wilson, Floden, & Ferrini-Mundy, 2001), experts (Cochran-Smith et al., 2011; Darling-Hammond, 2010b; Grossman, 2010), and professional organizations (American Association of Colleges for Teacher Education, 2010b; National Council for Accreditation of Teacher Education, 2010) agree that a central topic within teacher preparation is the perceived dissonance between theory and practice. To mitigate this dissonance, scholars argue that clinical practice must be at the center of teacher education (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Cochran-Smith et al., 2011; Darling-Hammond, 2010b; Flessner, 2012; NCATE, 2010).

Clinical experience, also referred to in the literature as student teaching, is identified as the single most important element of teacher preparation according to researchers (Franklin-Torrez & Krebs, 2012; Glenn, 2006; Moody, 2009; Steadman & Brown, 2011; Valencia, Martin, Place, & Grossman, 2009), government-sponsored reports (Wilson et al., 2001), and professional accrediting agencies (AACTE, 2010a; AACTE, 2010b; Council for the Accreditation of Educator Preparation, 2013; NCATE, 2010). However, there is a lack of consensus in the literature about the factors involved in an optimal student teaching experience. Researchers have highlighted specific factors affecting student teaching, but few have examined the combination of multiple factors that influence the student teaching experience.

A comprehensive review of the literature identified four factors that influence a quality student teaching experience. The emergent factors that serve as indicators for a successful student teaching experience include the Mentor Teacher (Beck & Kosnik, 2002; Clarke, Triggs, Nielsen, 2013; Fazio & Volante, 2011; Glenn, 2006; Grossman, 2010; Killian & Wilkins, 2009; Moody, 2009; Sayeski & Paulsen, 2012; Wilson et al., 2001; Wyss,

Siebert, & Dowling, 2012), the Clinical Environment (Capraro, Capraro, & Helfeldt, 2010; Castle, Fox, O'Hanlan Souder, 2006; Choy, Chong, Wong, & Wong, 2013; Cohen, Hoz, & Kaplan, 2013; Darling-Hammond, 2010b; Franklin-Torrez & Krebs, 2012; Grossman, 2010; Lee, Tice, Collins, Brown, Smith, & Fox, 2012; NCATE, 2010; Pepper, Hartman, Blackwell, & Monroe, 2012; Ronfeldt, 2012; Ronfeldt & Reininger, 2012; Ulvik & Smith, 2011; Zeichner, 2010), the University Supervisor (Boyd et al., 2009; Killian & Wilkins, 2009; Pepper et al.,2012; Ronfeldt & Reininger, 2012), and the Student Teacher (Franklin-Torrez & Krebs, 2012; Ulvik & Smith, 2011). This dissertation seeks to examine the perceptions of student teachers and university supervisors regarding these four factors, and the attributes of each, related to a quality student teaching experience. This research has important implications for future student teacher education. In identifying the strongest factors that influence a quality student teaching experience, teacher educators could better ensure that student teachers are positioned in quality placements.

Research Purpose

There are several factors that positively affect the quality of the student teaching experience that emerged from a review of the literature. These factors are closely related to the attributes of the mentor teacher, clinical environment, university supervisor, and the student teacher. The purpose of this study is to examine the perceptions of student teachers and university supervisors regarding the factors of a quality student teaching experience.

Research Questions

The following research questions will guide this study:

1. What specific attributes do student teachers and university supervisors perceive as most important in a mentor teacher?

2. What specific attributes do student teachers and university supervisors perceive as most important in a clinical environment?

3. What specific attributes do student teachers and university supervisors perceive as most important in a university supervisor?

4. What specific attributes do student teachers and university supervisors perceive as most important in a student teacher?

Methodology

This study employed a concurrent mixed method design to address these research questions. Mixed methods design involves collecting, analyzing, and integrating both quantitative and qualitative research methods to investigate the same phenomenon (Onwuegbuzie & Leech, 2006). Data generated from merging quantitative and qualitative research methodologies allows for a deeper understanding of the research questions than might be possible with a single approach. The quantitative data will be collected via Likert-scale survey, while the qualitative data will be collected using focus groups and constructed response survey items. The primary goals of using both sets of data in this study are to address both the breadth of the experiences, through the survey, and the depth of experiences, through focus group discussions and constructed response written items.

Significance of Research

The significance of this research is its potential to contribute to the knowledge, practice, and policy in teacher education. The significance also applies to those in educational leadership positions who set state and/or national standards regarding teacher preparation. The implications for this study include contributing to the existing knowledge base concerning preservice clinical experiences, providing an impetus for revising teacher education curricula, providing a foundation for creating policies that address clinical experiences, and attempting to connect theory to practice more deliberately.

Many researchers have cited a gap between university teacher preparation coursework and the realities of the K-12 classroom (Cochran-Smith, 2001; Cochran-Smith & Lytle, 1993; Franklin-Torrez & Krebs, 2012; Korthagen, Loughran, & Russell, 2006; Shulman, 1987; Smith, 2000). This dissonance between theory and practice manifests itself through preservice experiences and carries over into the first years of teaching. The dissonance is referred to in the literature as reality shock, sink or swim, or mere survival (Amoroso, 2005; Choy, Chong, Wong, Wong, 2013; Fantilli & McDougall, 2009; Hill, 2004; Howe, 2006; Korthagen, 2010; Lundeen, 2004; Street, 2004; Veenman, 1984).

Since student teaching serves as a cornerstone of teacher preparation, gaining a better understanding of the realities of field experiences is necessary (Cuenca, 2011). Choy et al. (2013) argued for a closer examination of the structure and content of the student teaching experience in order to better enable teacher education programs to prepare preservice teachers effectively. Researchers Ronfeldt and Reininger (2012) stated that there is a necessity for systematic examination of whether and which specific features of student teaching are related to better teacher outcomes. For example, more research is needed to

determine which factors in student teaching support teacher candidates' learning to teach in diverse placement settings (Lee et al., 2012). Wilson (2009) also confirmed a need to identify program features and core practices associated with effective initial teacher preparation. Similarly, Grossman (2010) stated that research is needed to identify the elements of clinical preparation that result in highly effective new teachers. The intent of this study is to examine the student teaching experience more closely based on the factors that have emerged from the literature. Though this analysis, I will examine the perceptions of student teachers and university supervisors regarding the factors that impact a quality student teaching experience.

Definition of Terms

Several key terms are essential to understand when reading this document. I created the definitions provided here based on a synthesis of terminology used in the literature. These definitions will be used in this dissertation.

Attribute. For the purposes of this dissertation, attributes are the words and statements used to describe each of the four factors of a quality student teaching experience: Mentor Teacher, Clinical Environment, University Supervisor, and Student Teacher.

AACTE. The American Association of Colleges for Teacher Education is a national alliance of 800 teacher education programs which seek to promote high quality evidence-based preparation and continuing education for school personnel.

Clinical placement. The clinical placement is the school site that has been arranged to host the student teacher for the student teaching experience. Clinical placements within schools are further distinguished with grade and subject placements specific to the grade and subject deemed appropriate by the university.

Content. Content refers to specific subject matter such as reading, mathematics, science, or social studies.

Factor. For the purpose of this dissertation, factor refers to the four dominant themes in the literature related to quality student teaching experiences: mentor teacher, clinical environment, university supervisor, and student teacher.

Learner. Within the conceptual framework, the terms learner and teacher are used by Collins, Brown, and Newman (1987) to describe the two roles involved in a cognitive apprenticeship. To draw parallels between this study and the conceptual framework, the term learner will refer to the student teacher.

Mentor teacher. The mentor teacher is a practicing classroom teacher who has been identified to host a student teacher for the clinical placement. This role is also referred to as the cooperating teacher.

NCATE. The National Council for the Accreditation of Teacher Education is the leading teacher education accreditation organization in the US. This organization is currently undergoing consolidation and is also referred to as Council for the Accreditation of Educator Preparation (CAEP).

Pedagogy. For the purpose of this dissertation, pedagogy will refer to teaching methods and management.

Preservice teacher. The preservice teacher term is used synonymously with teacher candidate and student teacher. Preservice teachers are students who have completed their coursework in a teacher preparation program and are completing their student teaching experiences.

Preservice teacher preparation. Preservice teacher preparation is the education and training one receives prior to becoming a licensed practicing teacher.

Pupil. For the purposes of this dissertation, pupil will be used to refer to the K-12 students in the host classroom for the student teaching placement.

Student teacher. A student teacher is a preservice teacher who has completed the requisite coursework and documentation in order to go into the clinical capstone placement and complete the student teaching experience.

Student teaching experience. The student teaching experience is the clinical component of teacher preparation in which the preservice teacher applies and develops skills related to teaching under the supervision of a mentor teacher and a university supervisor. The student teaching experience is the capstone and the most intensive field experience of teacher preparation. Terms used synonymously with student teaching experience include the following: clinical experience, field experience, practicum, practice teaching, and student teaching.

Teacher. Within the conceptual framework the terms learner and teacher are used by Collins et al. (1987) to describe the two roles involved in a cognitive apprenticeship. To draw parallels between this study and the conceptual framework, the term teacher will refer to the student teacher.

Teacher preparation. Teacher preparation refers to the program of study for teachers entering into the teaching profession through a traditional four-year university based program.

University supervisor. A university supervisor is an individual hired by the university in order to supervise the mentor teacher and to serve as a liaison between the university and the clinical placement.

Organization of Study

This dissertation consists of five chapters. Chapter 1 outlined the general topic, method, significance, definition of applicable terminology, and justification of research within the targeted area of clinical teacher preparation. Chapter 2 is a comprehensive review of the current literature on the topic of clinical teacher preparation in order to provide context for the research problem, a conceptual framework to connect the literature to the research problem, and a lens to analyze the data collected. Chapter 3 presents the research methodology that will be utilized to address the research problem, connect the research problem to clinical teacher preparation and methodological literature, and relate the research problem to the conceptual framework. Chapter 4 provides the findings from the study which are organized by research question. For each research question, the quantitative data is presented first, followed by the qualitative data, and finally by the merged data tables. Chapter 5 presents the conclusions based on the findings from Chapter 4. In addition to conclusions, Chapter 5 includes implications and limitations of the study as well as opportunities for future research.

Chapter 2: Review of the Literature

Introduction

Researchers, (Borko & Mayfield,1995; Fazio & Volante, 2011; Franklin-Torrez & Krebs, 2012; Glenn, 2006; Moody, 2009; Steadman & Brown, 2011; Valencia, Martin, Place, & Grossman, 2009), government-sponsored reports (Wilson et al., 2001), and professional accrediting agencies (AACTE, 2010a; AACTE, 2010b; CAEP, 2013; NCATE, 2010), have stated that the student teaching experience, also referred to in the literature as the clinical experience, is the cornerstone of teacher preparation in the US. Scholars have identified the clinical experience as central to teacher preparation and teacher preparation has become a point of interest to those involved in the accountability of institutions of higher education. Cohen et al. (2013) highlighted some specific areas of interest to educational researchers including (a) the reasons, goals, and rationales for the clinical experience, (b) the specific elements of the experience (activities and relationships), and (c) the documented effects, benefits, and outcomes of the clinical experience. Specifically, researchers have argued that it is imperative to learn more about the specific factors and variables that have the greatest impact on student teachers (Boyd et al., 2009; Choy et al., 2013; Cuenca, 2011; Ferrier-Kerr, 2009; Grossman, 2010; Lee et al., 2012; National Research Council, 2010; Ronfeldt & Reininger, 2012; Steadman & Brown, 2011; Wilson, 2009; Wilson et al., 2001).

Although the term clinical experience is often used interchangeably with the terms student teaching, field experience, clinical teaching, practice teaching, practicum, and

mentoring programs, the terms *clinical experience* and *student teaching* will be used in this study. Also, in effort to narrow the vocabulary, the terms *student teacher*, *mentor teacher*, *university supervisor*, and *pupils* will be used to describe the main participants within the practicum. For the purpose of consistency in this study, the definition provided by Cohen et al. (2013) suggested that a clinical experience "constitutes the longest and most intensive exposure to the teaching professional experienced by prospective teachers"… requiring the prospective teacher to "act relatively independent[ly] under the guidance of a mentor, supervisory teachers, or supervisors from a university/college of education" (p. 1).

Ulvik and Smith (2011) have drawn on the work of Aristole in order to connect the purpose of clinical experience to Aristole's techné, episteme, and phronesis. Ulvik and Smith (2011) conjectured that "student teachers need techné (knowing how) and by connecting the skills of teaching to episteme (knowing that), through reflection, they will gradually start developing phronesis (practical wisdom)" (p. 520). The overall purpose of the clinical experience is to provide student teachers hands-on experience in an authentic context (Ulvik & Smith, 2011).

Contributions of Professional and Accrediting Organizations

To better understand clinical experiences, it is essential to first understand both the origins of teacher education as well as what current professional and accrediting organizations agree are best practices. AACTE (2010b) stated that the concept of clinical experiences dates back to the 19th century when the normal school movement produced core components of teacher education including practice teaching. Over the last 150 years expectations of what teachers should know and be able to do has changed very little, while student teaching has remained central to teacher education (AACTE, 2010b, p. 1). According

to the AACTE (2010b), there are several key features or concepts that make a quality clinical experience:

> Typical processes of clinical work (observing, assessing, diagnosing, prescribing, and adjusting practice to reflect new knowledge), location (in direct contact with clients), and duration of the training (including an extended period of practice such as an internship and or/residency. (p. 1)

Additionally, the NCATE (2010) suggested that,

> School districts can work with preparation program partners to advance new staffing models patterned after teaching hospitals, which will enable clinical faculty, mentors, coaches, teacher interns, and residents to work together to better educate students and prospective teachers as part of clinical practice teams. (p. iii)

The NCATE created a team of researchers known as the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning (2010). This team included state officials, classroom teachers, higher education leaders, teacher educators, union representatives, and critics of teacher education. Over the course of 10 months, the team addressed the misalignment between teacher preparation and what skills schools need from teachers. Based on their research, they identified ten key design principles for clinically based preparation. The NCATE Blue Ribbon Panel's suggested the following design principle

1. Student learning is the focal point for designing and implementing clinical experiences.
2. Clinical preparation is interwoven in every facet of teacher education and that clinical practice is at the core.

3. Teacher candidate's progress is continuously assessed by the Interstate Teacher Assessment and Support Consortium (InTASC) core teaching standards, student data and artifacts, summative and formative data, and observations by supervising teachers and faculty.

4. Teacher candidates must have the opportunity to demonstrate their content and pedagogy mastery as well as their ability to become innovators, collaborators, and problem solvers.

5. Teacher candidates must have opportunities to learn in professional learning communities.

6. Clinical educators and coaches must be rigorously selected.

7. Sites for clinical experiences should be specifically chosen and funded to support embedded clinical preparation.

8. Current technology should be employed by both preparation and participating sites to have an impact on student learning.

9. Research and development must continuously improve experiences for teacher candidates, teacher preparation, and clinical support.

10. Strategic partnerships should be formed with districts, institutions of teacher preparation, and state agencies, to ensure a common understanding that it takes all agencies working together to adequately prepare high quality teachers (NCATE, 2010, pp. 5-6).

While these findings were specific to the NCATE Blue Ribbon Panel Report (2010), similar findings were presented in the 2010 AACTE policy brief regarding clinical

preparation of teachers. The AACTE (2010b) policy brief presented eight critical components of high quality clinical preparation programs:

1. Strong school/university partnerships in that university and school faculty must be mutually involved in designing and implementing clinical experiences.

2. Clinical settings must be carefully selected to ensure rich learning environments for student teachers as well as pupils of varying developmental levels, special needs, communities, and school types.

3. Clinical placements are well supervised and mentored by skilled clinical teachers, provide appropriate learning experiences, and shared expertise to support candidate learning.

4. Clinical teachers should have a wealth of expertise, extensive experience, trained as mentors, skilled in supporting learning of adult candidates as well as children.

5. Coordinating faculty working closely with K-12 schools to assist and oversee student teachers' clinical experiences, work jointly with clinical teachers to design, implement, and assess student teachers' clinical experiences.

6. School-based clinical curriculum that links theory and practice through carefully scaffolded, graduated responsibilities for student teachers, provides in-school assignments and projects designed to help student teachers understand student learning, motivation, management, assessment, data analysis, discipline, and technology.

7. Length of the student teaching program should also be considered. While experts stress the importance of a full-year experience, a minimum of one semester should be required to acquire basic clinical skills to serve as a teacher of record.

8. Performance assessments should be completed. These assessments would require ongoing evaluation and of candidates' performance regarding interactions, instruction, correction, and student support in real time. (p. 6)

Similarities exist between the two professional organization recommendations on the components of a successful clinical experience. These similarities include:

- A sustained and integrated program connecting theory and practice as well as content and pedagogy embedded in a clinical setting.

- Sustained candidate performance assessments consisting of multiple data points supporting student teacher growth.

- Carefully selected and trained university liaisons and clinical teachers to coach and support teacher candidates through their professional expertise.

- Carefully selected clinical experience settings to ensure a variety of cultural and learner diversities.

- Strong partnerships between university, K-12 schools and districts, as well as policy makers ensuring that all stakeholders have equal input to the student teaching experience and shared interest in producing high quality teachers.

NCATE (2010) referenced Sir William Osler, an instrumental change agent responsible for professionalizing medical education who once stated "He who studies medicine without books sails in uncharted sea, but he who studies medicine without patients does not go to sea at all" (p. 2). This juxtaposition between medicine and education supports the idea that expert practitioners must study the content and pedagogy within the waters in which they will be navigating in order to learn the ways to help real students (NCATE, 2010). NCATE (2010) also stated that teacher preparation must be a joint effort between

teacher preparation programs as well as district and state partnerships and cannot be achieved successfully without such cooperation. The Blue Ribbon Panel (NCATE, 2010) found that clinical preparation is both poorly defined and insufficiently supported even though new and experienced teachers alike cite student teaching as the most highly valued component of their teacher preparation.

Under the assumption that the student teaching experience is the cornerstone of teacher education, it is imperative to learn more about the factors that lead to a quality student teaching experience. The one commonality among most states is that majority of teacher preparation programs require between 10 - 14 weeks of student teaching (NCATE, 2010). AACTE (2010a) also found that a typical student teaching experience lasted approximately 13 - 16 weeks. NCATE (2010) found that in some clinical experiences, student teachers were spending a full year in professional development schools teaching every day with a master teacher and several practicum experiences prior to the student teaching year. In contrast, some student teachers may spend only eight weeks of student teaching with inexperienced mentor teachers at the conclusion of the teacher preparation program. Other preservice teachers are hired with little or no clinical experience (NCATE, 2010).

Where the role of the mentor teacher is concerned, about half of the states required some sort of training for mentor teachers but do not clearly indicate what the roles or requirements of the mentors should be (NCATE, 2010). Essentially, the Blue Ribbon Panel (NCATE, 2010) called for clinically based teacher preparation in which content, pedagogy, and professional coursework are embedded within clinical experiences. AACTE (2010b) stated that teacher preparation programs that are focused on the work in the classroom and

allow student teachers to engage in the actual practices of teaching produce student teachers that will remain in the teaching profession when compared to programs with less clinical emphasis.

In 2013, NCATE and the Teacher Education Accreditation Council (TEAC) consolidated to form CAEP as the sole teacher education accreditation organization. CAEP developed five accreditation guidelines and included specific recommendations for clinical partnerships and practice in Standard 2 (CAEP, 2013). According to CAEP (2013), Standard 2 is separated into three components: (1) partnerships for clinical preparation, (2) clinical educators, and (3) clinical experiences. The first component is focused specifically on the K-12 school and university collaboration in establishing and maintaining student teacher expectations for entry, preparation, and exit. Maintaining coherence among clinical and academic coursework ensures that theory and practice are connected. Collaboration also fosters shared responsibility of student teacher outcomes. The second component of Standard 2 is specific to clinical educators which includes all teacher preparation faculty working with clinical experiences as well as K-12 faculty who are selected, prepared, evaluated, and supported in order to provide a high quality clinical education for student teachers. The third component focuses the clinical experience itself, specifically that the experience should be designed with sufficient depth, breadth, diversity, coherence, and duration in order to ensure that student teachers demonstrate their developing effectiveness and have a positive impact on student learning. CAEP (2013) calls for a need for multiple performance-based assessments in order to demonstrate student teachers' development of knowledge, skills, professional dispositions, and positive impact on student learning in its third component.

While there are many similarities in the recommendations provided by the professional organizations, the most important similarity is that both organizations agree that K-12 embedded practice should be at the core of all teacher preparation (AACTE, 2010b; NCATE, 2010). As discussed previously, practitioners of medicine cannot practice without patients, and similarly, practitioners of learning cannot practice without pupils (NCATE, 2010). According to these organizations, student teachers must learn to teach in the context of an authentic school setting.

Findings from the Literature Review

The following sections describe the findings related to clinical practice in teacher education programs based on a comprehensive review of the literature. The findings that emerged centered on four factors that contribute to a quality student teaching experience: mentor teacher, clinical environment, university supervisor, and student teacher.

Description of search. The search for literature related to quality student teaching experiences began with identifying key terms related to clinical experiences. Education specific digital databases were used to increase efficiency including Academic Search Complete and Education Research Complete. The search parameters were set to include journal articles that had been peer reviewed and published since 2009 in order to ensure that the articles were published within the last five years. While the search parameters were specific to articles published in 2009 or later, there were several articles and resources published prior to 2009 that were frequently referenced within the literature. These works were also included in the search and were referenced as landmark studies.

The search terms that proved to be most fruitful were combinations and variations of "teacher education," "student teaching," "field experience," and "practicum." Since the focus

of this review was student teaching experiences, many articles were excluded due to a focus on attitudinal shifts, preservice teachers' sense of efficacy, and specific or unique learning situations. The literature selected for this review included a total of 47 resources: twenty-three empirical studies, seven expert papers or books, two policy reports prepared for the US Department of Education and the National Academy of Education, four reports from professional organizations, two comprehensive literature reviews of empirical research, and nine theoretical writings.

Overview of findings. After a comprehensive review of the literature, four factors emerged that contribute to a quality student teaching experience. These factors were closely related to the attributes of the mentor teacher, clinical environment, university supervisor, and the student teacher. Even though there are many variables that account for the quality of a clinical experience overall, such as duration, setting, content preparation, and relationships, many scholars believe that one of the most influential factors is the mentor teacher (Beck & Kosnik, 2002; Clarke et al., 2013; Cuenca, 2011; Fazio & Volante, 2011; Glenn, 2006; Grossman, 2010; Killian & Wilkins, 2009; Levine, 2006; Moody, 2009; Ronfeldt & Reininger, 2012; Sayeski & Paulsen, 2012; Wilson et al., 2001; Wyss et al., 2012). Another influential factor affecting student teaching outcomes is the clinical environment in which the student teacher is placed (Capraro et al., 2010; Castle et al., 2006; Choy et al., 2013; Cohen et al., 2013; Darling-Hammond, 2010b; Franklin-Torrez & Krebs, 2012; Grossman, 2010; Lee et al., 2012; NCATE, 2010; Pepper et al., 2012; Ronfeldt, 2012; Ronfeldt & Reininger, 2012; Ulvik & Smith, 2011; Zeichner, 2010). While researchers generally agree that the mentor teacher and clinical environment are two essential components of a successful student teaching experience, researchers also attest to the importance of the University Supervisor

(Boyd et al., 2009; Killian & Wilkins, 2009; Pepper et al.,2012; Ronfeldt & Reiniger, 2012). While each of the main factors are well supported in the literature, the attributes of student teachers are less prominent in the literature.

Mentor teacher. Considering all of the variables concerning clinical experiences, researchers have established that the mentor teacher has the greatest impact on student teachers (Beck & Kosnik, 2002; Clarke et al., 2013; Cuenca, 2011; Fazio & Volante, 2011; Glenn, 2006; Grossman, 2010; Killian & Wilkins, 2009; Levine, 2006; Moody, 2009; Ronfeldt & Reininger, 2012; Sayeski & Paulsen, 2012; Wilson et al., 2001; Wyss et al., 2012). Clarke et al. (2013) conducted a systematic review of the literature published in the *Review of Educational Research*, which included over 400 papers and articles spanning 60 years of research on cooperating (mentor) teachers. The reviewers examined the origins of the mentor teacher concept, mentor teacher conceptions, and perceptions concerning how mentor teachers participate in teacher education (Clarke et al., 2013). The Clark et al. (2013) study will serve as a framework for the mentor teacher section of the literature review by providing a lens to analyze the major findings from the study in relation to the extant body of literature centered on mentor teachers.

Origins of mentor teachers. Clarke et al. (2013) provided three key historical insights into how the term "cooperating teachers" (mentor teachers) was coined. According to Clarke et al. (2013), teacher preparation transitioned slowly from normal schools to universities between the late 1800s and the 1950s. With the normal school to university transition, faculty seeking academic status began to distance themselves from the normal schools. When deep budget cuts happened in the 1960s and 1970s, the laboratory schools that were created in relation to the universities for teacher preparation were mostly closed (Clarke et al., 2013). In

the second half of the 20th century, the baby boomers entered the public school system in greater numbers than years before, which in turn, created a high demand for clinical placements to prepare teachers for the exponentially growing student population (Clarke et al., 2013). With these growing numbers, faculty in teacher preparation programs began to see themselves as experts on teaching and seized their opportunity to control more of the clinical experience (Clarke et al., 2013). This change resulted in the new expectation that classroom (mentor) teachers would cooperate with the teacher preparation faculty in the effort to educate teachers, thus the term cooperating teacher came into use (Clarke et al., 2013). While the cooperating teacher concept dates back to post World War II, it is important to understand that there has been minimal change to this concept over the last several decades. The role of mentor teachers must be reevaluated in order to establish their current responsibilities in educating student teachers.

  Mentor teacher conceptions. Clarke et al. (2013) supported three common conceptions that have become well established within the teacher education literature: cooperating (mentor) teachers as "classroom placeholder, supervisor of practica, and teacher educator" (p. 4). The first conception, mentor teacher as placeholder (likened to an absentee landlord), suggested that the mentor teacher and the student teacher exchange roles upon the arrival of the student teacher (Clarke et al., 2013). Once replaced in the classroom by the student teacher, the mentor teacher remains in the teachers' lounge for the remainder of the practicum, more than likely replicating his or her own student teaching experience. According to Borko and Mayfield (1995), the classroom placeholder conception is now fairly uncommon.

The second conception is the mentor as the supervisor of practica (likened to an overseer) suggested that the mentor teacher's central role in the student teaching experience is to oversee, observe, record, and report back to the university on the student's successes and failures (Clarke et al., 2013). The mentor as supervisor conception brings with it the assumption that student teachers should learn what they need at the university and are placed in the practicum to practice what was previously learned. Valencia et al. (2009) described the difficulties student teachers experience when they explore or practice different teaching techniques while they are guests in other teachers' classrooms; this approach leaves little room for new teachers to develop their individual teaching identities. Student teachers in these situations can become complicit actors as they attempt to learn during a critical time that should be more experiential (Valencia et al., 2009, p. 318).

The last conception, mentor teachers as teacher educator (likened to a coach), concluded that mentor teachers are more like a coach trying to develop the greatest potential within the student teacher candidate (Clarke et al., 2013). Cuenca (2011) stated that tethered learning allowed student teachers to learn to teach while being coached by the mentor teacher who acted as the safety net (p. 124). Moody (2009) stated that student teachers felt that having the support of the mentor teacher during lessons was important. Ferrier-Kerr (2009) found that the "substances of an effective professional relationship between an associate teacher and student teacher are located in the personal connections, collaboration, interpretation of roles, styles of supervision, and reflective practice" (p. 796). Sayeski and Paulsen (2012) discussed the importance of coaching in the sense that mentors should not provide explicit recommendations, but instead they should guide the student teachers through probing questions and allow student teachers to reflect on observations and experiences in

order to develop his or her own practice. These conceptions offer insight into some of the ways that mentor teachers are perceived. The researchers above suggest that the teacher educator conception of mentor teachers is the most desirable and is best suited for student teacher professional growth.

Mentor teacher participation. Beyond the scope of the three common conceptions of mentor teachers, Clarke et al. (2013) provided 11 categories of participation within the mentor teacher literature and include mentor teachers as providers of feedback, gatekeepers of the profession, modelers of practice, supporters of reflection, purveyors of context, conveners of relation, agents of socialization, advocates of the practical, gleaners of knowledge, abiders of change, and teachers of children. Eight of the eleven categories provided by Clark et al. (2013) will be used to outline the findings related to the MT in this study

Feedback. Clarke et al. (2013) proposed that mentor teachers are expected to be "providers of feedback" (p. 12). One of the critical areas with regard to the student - mentor teacher relationship is constructive feedback (Killian & Wilkins, 2009; Sayeski & Paulsen, 2012; Ulvik & Smith, 2011). Beck and Kosnik (2002) outlined the importance of both positive and negative feedback for student teachers. Glenn (2006) articulated the need for "honest feedback" from the mentor teachers positing that if the mentor teachers are unwilling or unable to constructively criticize the student teachers, the progress of the student teachers will be slow (p. 91). Moody (2009) described the provision of constructive feedback from supervising teachers to be "of paramount importance" (p. 171). Sayeski and Paulsen (2012) found that student teachers favored cooperating teachers who offered frequent feedback with specific recommendations. The literature supports mentor teachers offering frequent

constructive feedback, both positive and negative, to student teachers in order to help them to grow professionally.

Practice and reflection. In addition to the importance of feedback, another key feature Clarke et al. (2013) discussed is that of mentor teachers as "modelers of practice" (p. 15). The importance of having effective mentor teachers as exemplary models is paramount to the student teaching experience, permitting student teachers to observe best practice (Franklin-Torrez & Krebs, 2012; Lee et al., 2012; Sayeski & Paulsen, 2012). Clarke et al. (2013) stated that an additional category within the literature is that mentor teachers are "supporters of reflection" (p. 16). Just as the mentor teachers must demonstrate their own reflection to student teachers, they must also develop the reflection process among student teachers (Borko & Mayfield, 1995; Ferrier-Kerr, 2009). Glenn (2006) stated that mentor teachers should not just focus on how to teach, but should also focus on developing student teachers into professionals in the field by reflecting on their progress, working collaboratively with colleagues, and maintaining a passion for the work amid personal and work stressors. Franklin-Torrez and Krebs (2012) found that mentor teachers reflected on their own teaching practices and learned new ideas from the student teacher when they facilitated student teacher self-reflection.

Context, socialization, and the practical. As Clarke et al. (2013) discussed, mentor teachers are "purveyors of context" (p. 17), "agents of socialization" (p. 19), and "advocates of the practical" (p. 20). This includes managing and creating the context in which student teachers function in order to reveal the realities, or the real work, of the teaching profession (Ball & Foranzi, 2010; Fazio & Volante, 2011; Franklin-Torrez & Krebs, 2012; Sayeski & Paulsen, 2012; Ulvik & Smith, 2011). Cuenca (2011) discussed the importance of mentor

teachers providing the tools for teaching success such as lesson plans, copies of handouts, and the use of a teacher edition book in order to provide legitimacy to the student teachers within the context of the classroom (p. 121). Moody (2009) described the need for mentor teachers to intervene diplomatically in order to redirect the student teachers during a lesson. In some cases, mentor teachers face many other responsibilities that limit their ability to provide an optimal student teaching experience related to context and socialization (Valencia et al., 2009). Valencia et al. (2009) noted the challenges of mentor teachers due to the accountability pressures, classroom and school responsibilities, and minimal training.

 Relation and knowledge. Clarke et al. (2013) also discussed the importance of mentor teachers as "conveners of relation" (p. 18). The student - mentor teacher relationship component is critical to the success of the practicum experience (Beck & Kosnik, 2002; Cuenca, 2011; Ferrier-Kerr, 2009; Franklin-Torrez & Krebs, 2012; Glenn, 2006; Ulvik & Smith, 2011). In addition to establishing a relationship with student teachers, Clarke et al. (2013) noted that mentor teachers are "gleaners of knowledge," which implies that mentor teachers benefit from the knowledge of the student teachers (p. 21). Researchers Franklin-Torrez and Krebs (2012) concluded that master teachers benefit from hosting student teachers because the experience provides them with professional growth as educators. Specific areas of professional growth included reflection on practice, learning new ideas from student teachers, as well as being able to share knowledge and expertise with the student teacher (Franklin-Torrez & Krebs, 2012).

 There were several factors that were not specifically addressed within the scope and purpose of the comprehensive literature review conducted by Clarke et al. (2013). These areas were less related to the interpersonal qualities and more related to historical,

professional, and personal attributes of mentor teachers (Beck & Kosnik, 2002; Franklin-Torrez & Krebs, 2012; Glenn, 2006; Lee et al., 2012). For example, Franklin-Torrez and Krebs (2012) found that mentor teachers should be caring, compassionate, helpful, supportive, encouraging, and must never give up on a student teacher. In addition to these qualities successful mentor teachers are willing to allow student teachers to "be a teacher" and support the student teacher throughout the student teaching experience (Franklin-Torrez & Krebs, 2012 p. 492). Cuenca (2011) stated that mentor teachers must provide legitimacy to the student teacher and be mindful of including student teachers which is either granting or denying access to the work of teaching. Glenn (2006) posited that effective mentor teachers "collaborate rather than dictate, relinquish an appropriate level of control, allow for personal relationships, share constructive feedback, and accept differences" (p. 88). Beck and Kosnik (2002) found similar results in that student teachers value emotional support, a peer relationship, a degree of collaboration, a degree of flexibility, and feedback on performance from their mentor teachers.

Mentor teacher characteristics. Killian and Wilkins (2009) examined the effectiveness of mentor teachers in a research study of 13 pairs of mentor and student teachers and concluded that there were three major elements of highly effective mentors included having taught for 10 - 29 years with an average of 17 years; having supervised more than five student teachers; and closely collaborating with university supervisors. Two of these highly effective mentor teachers from the study were National Board Certified Teachers. Lee et al. (2012) investigated the effectiveness of student teaching experiences in a research study that surveyed 130 teacher candidates and reported that it is important to ensure that student teachers learn under the supervision of highly qualified mentor teachers. In

addition to meeting the criteria of experience and qualifications, the overall quality of the mentor teacher is critical (Ronfeldt & Reininger, 2012).

Another essential element of successful mentor teachers is how effectively they are able to relinquish control to a student teacher without providing too much or too little control at the appropriate time (Beck & Kosnik, 2002; Franklin-Torrez & Krebs, 2012; Glenn, 2006; Moody, 2009; Ulvik & Smith, 2011). In addition to relinquishing control, researchers stated that it is imperative that mentor teachers learn to strike a balance of support for a student teacher, both professionally and emotionally (Beck & Kosnik, 2002; Fazio & Volante, 2011; Ferrier-Kerr, 2009; Franklin-Torrez & Krebs, 2012; Glenn, 2006; Moody, 2009; Ulvik & Smith, 2011; Valencia et al., 2009). One missing component that potentially limits mentor teacher effectiveness is the lack of training for mentor teachers to support student teachers throughout the practicum process (Borko & Mayfield, 1995; Clarke et al., 2013; Cuenca, 2011; Franklin-Torrez & Krebs, 2012; Ulvik & Smith, 2011; Valencia et al., 2009). If mentor teachers are not trained to support student teachers, then mentors must rely on their own coaching experiences which could result in mentor teachers treating their student teachers how they were treated as student teachers.

Clinical environment. The literature discussing the optimal practicum environment is expansive and, in some cases, conflicting. The central emergent themes from the literature are presented according to the practicum goals, approaches, institutional connections and relations, placement context, duration, importance of inquiry, and tensions and outcomes.

Goals. Cohen et al. (2013) conducted a systematic literature review of 113 empirical studies published from 1996 - 2009 concerning the rationales, goals, activities, roles, and outcomes in different practicum settings within teacher education programs. The researchers

reported that rationales, goals, and activities in various practicum settings are focused on demonstrating teacher competence and experiences specific to student diversity (Cohen et al., 2013). Based on the review, there were four major goals of the practicum experience: (1) promoting the student teachers' professional abilities, (2) helping student teachers adjust to the school environment, (3) promoting the student teachers' personal growth, and (4) positively impacting the school (Cohen et al., 2013).

The literature has supported the four major goals of the practicum outlined by Cohen et al. (2013) indicating that a perceived strength within the practicum setting is the inclusion of the student teacher in all professional activities of the mentor teacher as well as sharing resources and materials with student teachers in order to foster growth (Cuenca, 2011; Ferrier-Kerr, 2009; Franklin-Torrez & Krebs, 2012; Sayeski & Paulsen, 2012). Team teaching, or tethered approaches, appear to promote a productive environment for student teaching by providing opportunities for the student teachers to make mistakes and the mentor teachers to quickly correct them without making the student teachers feel inferior (Beck & Kosnik, 2002; Ferrier-Kerr, 2009; Killian & Wilkins, 2009; Valencia et al., 2009).

Another key component in successful practicum experiences includes the need for clear goals and outcomes for the practicum experience (Cohen et al., 2013; Cuenca, 2011; Ferrier-Kerr, 2009; Steadman & Brown, 2011; Pepper et al., 2012; Ulvik & Smith, 2011; Valencia et al., 2009). It is critical in successful practicum experiences to have clearly defined roles and expectations of student teachers, mentor teachers, and university supervisors (Cohen et al., 2013; Cuenca, 2011; Ferrier-Kerr, 2009; Steadman & Brown, 2011; Valencia et al., 2009).

Approaches. As a result of their review, Cohen et al. (2013) presented two different approaches to the practicum and three types of institutional relationships. The two approaches to the practicum included "apprenticeship" and "personal growth" (Cohen et al., 2013, p. 26). The apprenticeship approach is when the mentor teacher supports the student teacher in building instructional skills, adjusting to the school environment, understanding their role as future teachers, overcoming challenges, presenting curriculum, and demonstrating teaching (Cohen et al., 2013). In contrast, the personal growth approach is when the university supervisor is focused on the inner world of the student teacher including "beliefs, personal identity, self-efficacy, perceptions, opinions, and feelings" of student teachers (Cohen et al., 2013, p. 26-27).

Institutional connection and relations. Based on their review, Cohen et al. (2013) identified three types of relationships between the university and the K-12 school. The relationships include (a) relationships in stronger favor of the teacher education program, (b) relations in stronger favor of the K-12 school, and (c) symmetric relations including collaboration and equal favor between the teacher education program and the K-12 schools in which student teachers are placed (Cohen et al., 2013).

Researchers argue that establishing connections between university coursework and the realities of the K-12 classroom through ongoing collaboration and alignment between teacher education programs and the K-12 schools are paramount to student teacher success (Castle et al., 2006; Cohen et al., 2013; Cuenca, 2011; Darling-Hammond, 2010b; Flessner, 2012; Franklin-Torrez & Krebs, 2012; Grossman, 2010; Killian & Wilkins, 2009; Pepper et al., 2012; Steadman & Brown, 2011; Ulvik & Smith, 2011; Valencia et al., 2009; Wilson et al., 2001; Zeichner, 2010). Castle et al. (2006) studied the Professional Development Schools

model versus non- Professional Development Schools model of teacher preparation and stated that their research findings support "teacher preparation that is deliberate and systematic in building connectivity between schools and universities so that teacher candidates can build connectivity between theory and practice" (p. 78). Zeichner (2010) stated that a central problem that has been occurring for years is the lack of connection between the campus and school-based components of teacher preparation programs. Cohen et al. (2013) recommended a comprehensive view of teacher preparation merging practica into the reality of schools, translating theory into practice through universities cooperating with the mentor schools. Darling-Hammond (2010b) posits that:

Connecting theory and practice cannot succeed without a major overhaul of the relationships between universities and schools…It is impossible to teach recruits how to teach powerfully by asking them to imagine what they have never seen or to suggest they "do the opposite" of what they have observed in the classroom. (p. 42)

Placement context. Ronfeldt (2012) surveyed 3,000 New York City teachers, their students, and individuals in their schools, in an effort to evaluate whether student teachers should be placed in difficult-to-staff schools, also referred to as schools with high teacher turnover rates, in order to learn to teach. As a result of this research, Ronfeldt (2012) identified the competing theories that are held by teacher educators concerning in which contextual environments to place student teachers.

Ronfeldt (2012) posited that one camp believes that difficult-to-staff and underserved schools are the best place to learn to teach. Ronfeldt (2012) suggested that the argument that supports placement of student teachers in difficult-to-staff and underserved schools stemmed from the belief that teachers learn how to deal with the challenges unique to these schools

when placed in these contexts. The challenges associated with difficult-to-staff schools were much less likely to be found in easier-to-staff schools. Ronfeldt (2102) suggested that when student teachers were engaged in these challenges, they were provided with opportunities to encounter the realities in underserved schools. The placement in underserved schools resulted in student teachers who were more prepared and effective in the classroom while it also increased teaching longevity (Ronfeldt, 2012).

Ronfeldt (2012) also presented the other side of the argument held by teacher educators. This opposing argument suggests that learning to teach in easier-to-staff schools provides student teachers with opportunities to learn in a more functional and supportive environment for their professional development (Ronfeldt, 2012). Student teachers in these situations are able to develop professionally without being consumed by overwhelming classroom management issues (Ronfeldt, 2012).

The findings from this study suggested that learning to teach in the easier-to-staff schools helps student teachers become more effective, which in turn, provides greater longevity for teachers in New York City (Ronfeldt, 2012). Ronfeldt (2012) cited other factors possibly responsible for student teaching success including the quality of the teachers that gravitate toward easier-to-staff schools, as well as higher quality administration and additional school support services. The major finding from this study was that teacher education programs should avoid placing student teachers in difficult-to-staff schools due to the lower teacher effectiveness and retention resulting from such placements (Ronfeldt, 2012).

Duration. Ronfeldt and Reininger (2012) conducted a study surveying 1,057 student teachers in a large urban district before and after their practicum experiences in order to determine whether lengthening the student teaching experience improved the student teachers' perceptions of preparedness, efficacy, and plans to teach in the district upon completion of student teaching. The average practicum length was about 14 weeks but ranged from 2 – 36 weeks with 90% of the student teaching practica lasting between 10 – 16 weeks (Ronfeldt & Reininger, 2012). The researchers found that student teachers who reported better quality student teaching experiences felt more prepared instructionally, had higher efficacy, and planned to remain in the teaching profession for longer than those who reported lower quality experiences (Ronfeldt & Reininger, 2012). These findings concluded that simply increasing the length of the student teaching experience may not have a substantial impact on teacher preparation; rather it is important to focus on the quality of the student teaching experience (Ronfeldt & Reininger, 2012).

This finding is also supported by Ball and Forzani (2010) who stated that one of the three key domains to teacher preparation is instructional activities and settings. To be more specific Ball and Forzani (2010) suggested that time alone is not the key to practice, but it is the quality of the practice, coaching, and supervision that makes the greatest impact on student teachers. Grossman (2010) supported these arguments suggesting that the quality of a student teacher placement is just as important as the amount of time spent in the practicum. Grossman (2010) concluded that more time in a problematic setting is not necessarily better than less time in one that is higher functioning. To summarize, the literature supports the notion that it is the quality rather than the quantity of time that student teachers spend in the placement that has a positive impact overall.

While researchers have found that length of time is less important as the quality of the time, Darling-Hammond (2010b) stated that extended time in the student teaching placement is imperative, specifically, one school year with gradually increased student teaching responsibilities (Darling-Hammond, 2010b). Beck and Kosnik (2002) also support the concept of graduated teaching responsibilities. Researchers Castle et al. (2006), Darling-Hammond (2010b) and Pepper et al. (2012), highlighted the concept of Professional Development Schools and promoted their stance of the year-long internship that make successful student teaching placements Wilson et al. (2001) posited that the optimum amount of time student teachers are placed within the practicum has yet to be determined, and they also argue that further investigation needs to be conducted on this issue.

Importance of inquiry. Researchers have underscored the importance of the student teaching environment to promote student teacher self-inquiry rather than duplicating the behaviors of the mentor teacher (Capraro, Capraro, & Helfeldt, 2010; Killian & Wilkins, 2009; Moody, 2009; Sayeski & Paulsen, 2012; Ulvik & Smith, 2011). Part of the inquiry process requires student teachers to feel comfortable within the practicum environment in order to take risks and try new ideas (Moody, 2009; Ulvik & Smith, 2011). Some studies have taken inquiry to the next level and have stated that an inquiry project, capstone project, or performance portfolio should be completed by the student teacher in order to promote inquiry and synthesis (Castle et al., 2006; Darling-Hammond, 2010b; Wilson, 2009).

Connecting to cognitive and emotional development, Franklin-Torrez & Krebs (2012) found that the most important characteristic of a quality practicum environment is the emotional environment. Specifically, Beck & Kosnik (2002) reported the emotional support provided by the mentor teacher is a key component of a good practicum placement. Franklin-

Torrez & Krebs (2012) stated that the environment should be "fun, and enjoyable, accepting, caring, comfortable, and welcoming" (p.489). Moody (2009) confirmed that both emotionally and professionally supportive environments are central to achieving a positive practicum experience.

   Tensions and outcomes. Cohen et al. (2013) identified seven tensions that exist in the reviewed studies pertaining to the practicum experience:

1. The allotment of time was lacking due to mentor teachers' sole authority of the classroom.

2. The mentor teachers desired to remain in control of the classroom while the student teachers desired independence.

3. The mentor teachers were primarily concerned with the mentor teachers' curricula and satisfactory academic results for pupils, while the university supervisor was primarily interested in the development of the student teacher.

4. The mentor teachers were typically selected according to their availability and were not prepared for the role.

5. The student teachers were sometimes not able to see connections between their coursework and field expectations by the mentor teacher causing conflicts and resulting in student teachers rejecting the mentor teachers' actions.

6. The dual mentor roles required mentor teachers to guide and support student teachers while at the same time being critical of them.

7. There were differences in educational perceptions, experiences, personal background, and style between student teachers and mentor teachers.

In addition to the goals and tensions of the practicum, Cohen et al. (2013) identified three major outcomes of the practicum experience: (1) cognitive and emotional development of the student teacher, (2) student teachers' improvement of instruction competencies and skills, and (3) school students' achievements as the result of the student teachers. The conclusions and implications concerning the tensions and outcomes of the student teaching experience warrant further exploration in order to identify ways in which these obstacles can be addressed to best meet the needs and expectations of the students and mentor teachers.

The findings in the literature concerning clinical environment suggest several fundamental considerations including the importance of inquiry, placing students in easy-to-staff schools versus difficult-to-staff schools for an appropriate context, having clearly articulated goals and outcomes including expectations of all roles associated with the student teaching experience, promoting strong connections between teacher preparation and K-12 realities, and focusing on the quality of the time spent in the field placement instead of the length of time. According to these findings, these recommendations should be considered when placing students in a clinical environment.

University supervisors. Researchers have argued that the university supervisor, or acting liaison for the university, is a key factor in a quality practicum experience (Boyd et al., 2009; Killian & Wilkins, 2009; Pepper et al., 2012; Ronfeldt & Reininger, 2012). While researchers Boyd et al. (2009), Killian and Wilkins (2009), Pepper et al. (2012), and Ronfeldt and Reininger (2012) believed that the university supervisor role is crucial, Steadman and Brown (2011) concluded that the role of the university supervisor lacks continuity from university to university and argued for consistency in the areas of the minimum number of observations, how to monitor the lesson plans, and communication with student teachers.

Borko and Mayfield (1995) advocated for a much different approach to the university supervisor role including less emphasis on feedback and lesson planning and more emphasis on using their limited time in schools to train and coach the mentor teacher. The specific training would need to include topics such as observing student teachers, conducting conferences, and promoting reflective practice (Borko & Mayfield, 1995). Ulvik and Smith (2011) conducted open-ended surveys of 55 student teachers, 15 mentor teachers, and six university supervisors to investigate what characterizes a good practicum experience. While both the student teachers and mentor teachers emphasized the importance of good relationships where both parties were professionally engaged and both experienced a supportive environment that promoted risk-taking, none of the participants included the university supervisor as a key component for a good practicum experience (Ulvik & Smith, 2011). With the diverging viewpoints on the role of the university supervisor, overarching conclusions about the value of university supervisors are inconclusive (Steadman & Brown, 2011).

  Student teachers. There is an abundance of research focused on mentor teachers' and student teachers' attitudes about student teaching practica (Wilson et al., 2001). However, based on the review of the literature, there is limited research available concerning the attributes and dispositions of the student teacher. There have been calls for more research to determine which elements in student teaching support student teachers' learning (Franklin-Torrez & Krebs, 2012; Lee et al., 2012). A study conducted by Franklin-Torrez and Krebs (2012) conducted an open-ended survey for 174 student teachers and their mentors to investigate the characteristics of the student teaching experience in order to better understand what makes a quality student teaching experience. The findings from Franklin-Torrez and

Krebs (2012) relate to characteristics of successful student teachers included the following: motivation and initiative, professionalism, teacher dispositions, personal characteristics, and knowledge. Researchers agree that student teachers desire to be perceived as teachers and equals by their mentor teacher and the other faculty (Beck & Kosnik, 2002; Cuenca, 2011; Glenn, 2006; Moody, 2009).

Conceptual Framework: Cognitive Apprenticeship

The conceptual framework used in this study to interpret the findings was cognitive apprenticeship (Collins, Brown, & Newman, 1987). For the purposes of this study, the term *teacher* will refer to the mentor teacher as described in previous sections. The term *learner* will refer to the student teacher as also described in previous sections. The cognitive apprenticeship framework was created by Collins et al.(1987) but is grounded in other works including Vygotsky's (1978) socio-cultural theory of learning, situated cognition, and zone of proximal development. Further, this framework extends the work of Lave (1977) regarding traditional apprenticeships. Vygotsky's (1978) socio-cultural theory of learning outlines the importance of both the socialization of learners and the role of communication as foundations for learning. Situated cognition involves how thinking can be adapted in authentic situations or environments (Vygotsky, 1978). The zone of proximal development outlines the difference between what one can do without assistance versus what one can do with the guidance of a more experienced mentor (Vygotsky, 1978).

Learning through guided experience. The term cognitive apprenticeship refers to student learning through guided experience with a focus on the cognitive and metacognitive rather than the physical skills and processes (Collins et al., 1987). To expand this thought, Collins et al. (1987) asserted that this method of internship calls for an externalization of the

processes that are traditionally done internally, bringing "tacit processes out into the open where students can observe, enact, and practice with help from the teacher" (p. 4). This process in the context of preservice teacher's clinical experience requires the mentor teacher and the student teacher to think and communicate externally in order to verbalize processes for feedback, scaffolding, and communication. Stalmeijer, Dolmans, Wolfhagen, and Scherpbier (2009) argued that using cognitive apprenticeship within a learning climate constitutes a comprehensive theoretical framework for good clinical practice. The desired outcome of cognitive apprenticeship is to promote the development of self-correction and self-monitoring in the student teacher (Collins et al., 1987). In addition to promoting self-correction and self-monitoring, Collins, Brown, and Holum (1991) posited that in the cognitive apprenticeship theory, teachers need to encourage learners to explore the questions that teachers cannot answer, to challenge the solutions of purposed experts, and to encourage learner inquiry in order to become experts.

Cognitive apprenticeship theory elements. Collins et al. (1991) stated that there are four main elements to the cognitive apprenticeship: content, method, sequence, and sociology. See Figure 1 for a visual representation of the main elements of the cognitive apprenticeship as well as the components of each.
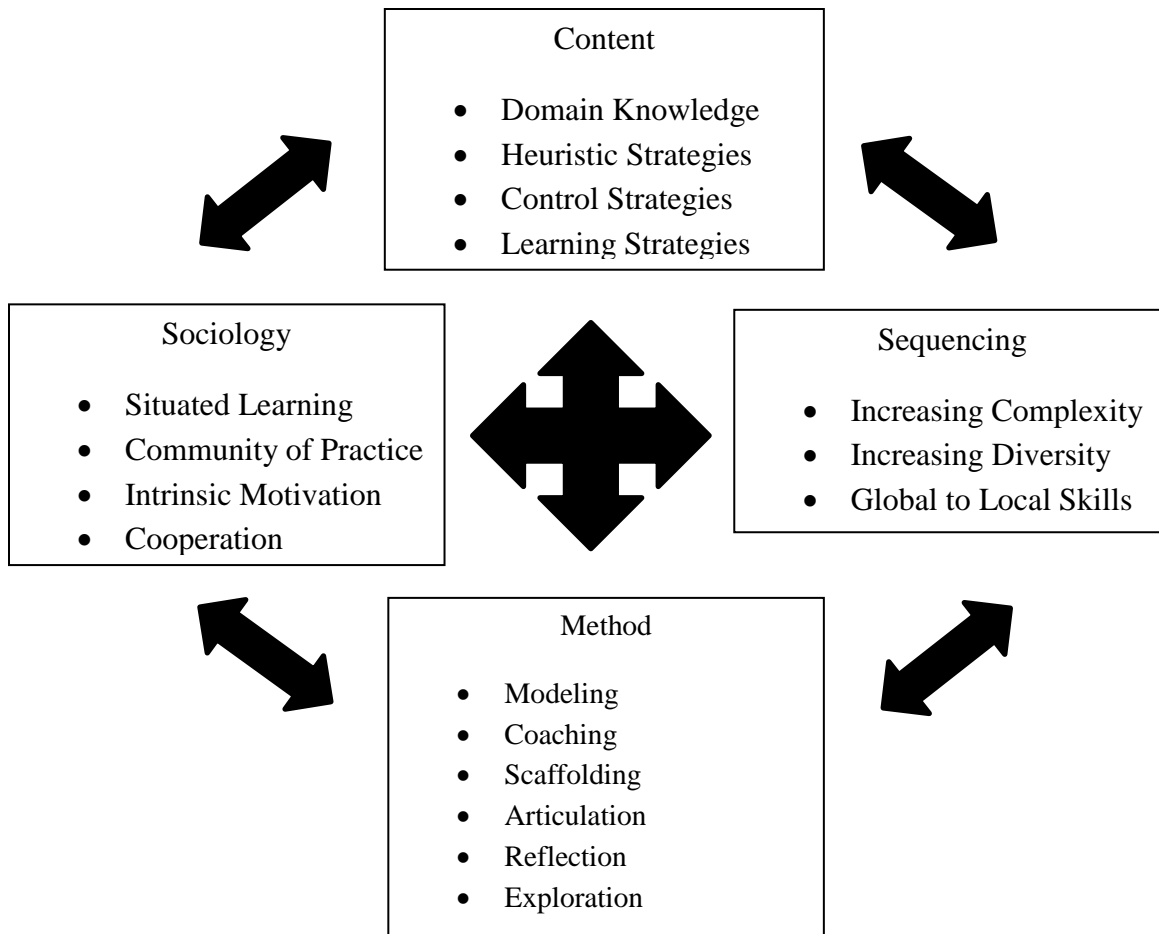
Figure 1. Elements of cognitive apprenticeship. Adapted from Collins et al., 1987, p.13.

According to Collins (2006), the term content refers to the types of knowledge required for expertise; the term method outlines the ways to promote the development of expertise; the term sequencing attends to the keys to ordering learning activities; and the term sociology encompasses the social characteristics of learning environments. Together, the combination of these four elements increases the effectiveness of a learning situation (Collins et al., 1991). Embedded within the four elements of the cognitive apprenticeship model are six teaching strategies that support cognitive apprenticeships: the modeling-teacher performs tasks for learners to observe, the coaching-teacher observes and facilitates while the learner perform a task, the scaffolding-teacher provides supports to help the learner perform a task,

the articulation-teacher encourages the learner to verbalize his or her knowledge and thinking, the reflection-teacher enables the learner to compare his or her performance with others, and the exploration-teacher invites the learner to pose and solve his or her own problems (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Of these strategies, modeling, coaching, and scaffolding are considered to be at the core of cognitive apprenticeships (Collins, 2006; Collins et al., 1991; Collins et al., 1987).

        Built upon traditional apprenticeship. Berryman (1991) suggested that the cognitive apprenticeship strategies build upon traditional apprenticeships in the sense that students acquire observable skills and incorporate a more collaborative experience for learning. Lave (1978) outlined traditional apprenticeships in the research setting of West African tailor shops in which Lave referred to the work being done as observation, coaching, and practice. Similarly, Collins et al. (1987) embedded comparable elements into the cognitive apprenticeship calling them modeling, coaching, and fading. Collins et al. (1987) noted that the difference between the traditional apprenticeship and the cognitive apprenticeship is that in a traditional apprenticeship model, problems do not arise from pedagogical concerns but rather from demands in a workplace. In contrast to traditional apprenticeship, cognitive apprenticeship theory suggests that problems are chosen to illustrate the power of certain techniques and methods in order to give students practice applying such methods in diverse settings while slowly increasing the task complexity and reflecting the sequencing in order to meet demands of learning (Collins et al. 1987). Collins et al. (1987) also stated that another difference in cognitive apprenticeship, as opposed to traditional apprenticeship, is that unlike traditional apprenticeship, the skills learned in the cognitive apprenticeship are focused on decontextualizing knowledge so that situated

learning is extended into diverse settings and students are able to apply their skills in different contexts.

Description of the main elements. To understand these principles one must begin to dissect each of the four main elements include content, method, sequencing, and sociology. Within each element are characteristics that should be considered when constructing or evaluating learning environments (Collins et al., 1987). Each of these four elements work together to help learners acquire expertise and robust problem solving skills focusing on the cognitive and metacognitive guided learning experiences, rather than on physical skills an processes (Collins et al., 1987).

Content. In the context of cognitive apprenticeship, content is referred to as the four types of knowledge and skill sets that experts in the field use to solve multidimensional problems in the real world and include domain knowledge, heuristic strategies, control strategies, and learning strategies (Collins et al., 1991). Domain knowledge is composed of knowledge of concepts, facts, and procedures specific to a particular subject matter (Berryman, 1991; Collins, 2006; Collins et al., 1991; Collins et al., 1987; Rojewski & Schell, 1994). While domain knowledge is essential for understanding subject matter, if taught in isolation, it becomes relatively inadequate when used to solve complex problems that go beyond the basic understanding of the content area (Rojewski & Schell, 1994). Heuristic strategies are known as the tricks of the trade used to accomplishing tasks that may not always work, but when they do, they are deemed very helpful (Berryman, 1991; Collins, 2006; Collins et al., 1991; Collins et al., 1987; Rojewski & Schell, 1994). Control strategies include self-regulation strategies such as monitoring, diagnostic, and remedial components and are more metacognitive in nature in the sense that one must select from multiple problem

solving strategies in order to see what works and then change strategies if these attempts are unsuccessful (Berryman, 1991; Collins, 2006; Collins et al., 1991; Collins et al., 1987; Rojewski & Schell; 1994). Learning strategies include knowledge of general strategies for exploring new domains as well as specific strategies for extending new knowledge in solving problems and carrying out complex tasks (Berryman, 1991; Collins, 2006; Collins et al., 1991; Collins et al., 1987; Rojewski & Schell, 1994).

Method. Included in the method realm are three groups or domains of teaching and learning methods including: Group One: aimed at the core of traditional apprenticeship-modeling, coaching, and scaffolding; Group Two: aimed at helping students develop problem solving-articulation and reflection; and Group Three: aimed at encouraging learner autonomy in defining, solving, and formulating problems to be solved (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Embedded within the first group are the skills of modeling, coaching, and scaffolding (Berryman, 1991; Collins, 2006; Collins et al., 1991; Collins et al., 1987; Rojewski & Schell, 1994). Modeling involves a teacher performing tasks in order for a learner to observe desired outcomes and requires the teacher to externalize normal internal processes (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Coaching involves observations from the teacher while completing the task as well as offering feedback, more modeling, hints, and challenges (Collins, 2006). The ultimate goal of coaching is to increase the skill level so that the learner becomes equal to the teacher (Collins, 2006; Collins et al., 1991; Collins et al., 1987).

Beyond coaching comes scaffolding where the teacher expert offers the learner only the support that he or she needs to be successful (Collins, 2006; Collins et al., 1991; Collins et al., 1987). In scaffolding, as the learner grows more competent, the teacher fades or

withdraws support in order to encourage the learner to function independently (Collins, 2006; Collins et al., 1991; Collins et al., 1987; Rojewski & Schell, 1994). Articulation occurs collaboratively between the learner and the teacher as they make sense of the learning experiences from multiple vantage points in order to improve practice by explicitly stating knowledge, reasoning, and problem solving processes (Collins, 2006; Collins et al., 1991; Collins et al., 1987). As learners move through each of the phases of modeling, coaching, and scaffolding, their teaching capacities are developed; however, it is equally important to articulate their actions and reasoning and to reflect on practice (Rojewski & Schell, 1994). Reflection requires learners to compare their own problem solving processes to those of the teacher (Collins, 2006; Collins et al., 1991; Collins et al., 1987).

Sequencing. There are three elements to sequencing learning activities: increasing complexity, increasing diversity, and developing global before local skills (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Collins et al. (1991) argued for the importance of giving learners tasks that structure learning in order to preserve the meaningfulness of what they are doing. Increasing complexity refers to constructing learning experience sequences in which skills and concepts progressively increase in difficulty in order to ultimately attain expert performance (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Increasing diversity requires an ever widening variety of learning experiences in order for learners to learn to distinguish in which conditions to apply their new skills (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Global before local skills requires learners to make sense of the portion of the work in which they are carrying out, consequently improving their ability to develop self-monitoring and self-regulating skills as they see how what they are doing fits into the larger processes (Collins, 2006; Collins et al., 1991; Collins et al., 1987). The

overarching goal of sequencing is to offer learners opportunities to apply skills to diverse

problems in order to develop a more robust set of contextual associations that are applicable

to unfamiliar problems (Collins et al., 1991).

    Sociology. Sociology is the last key element of the cognitive apprenticeship model

and one that places an emphasis on the "beliefs, values, culture, and social settings of real

world learning" (Rojewski & Schell, 1994, p. 239). Apprentices must learn skills in the

context of their application to real world problems embedded in a culture focused and

defined by expert practice (Collins, 2006; Collins et al., 1991; Collins et al., 1987). The

element of sociology adds a sense of placing students "in authentic life environments

enhances knowledge transfer while encouraging adoption of workplace or community values

through ongoing interaction with experts" (Rojewski & Schell, 1994, p. 239). Only by

experiencing subject matter in authentic contexts will learners be able to apply what they

learn in unfamiliar situations (Berryman, 1991).

    Within the element of sociology are four delineations: situated learning, community

of practice, intrinsic motivation, and exploiting cooperation (Collins et al., 1991). Situated

learning is concerned with fostering learning by having the learners perform tasks and

execute problems solving strategies in an environment that is conducive to the application of

the knowledge they will use in the future (Collins et al., 1991). Situated learning

encompasses the following: learner's understanding the purposes and uses of the knowledge

that they are learning, learning by actively using knowledge rather than receiving it through

transmission, learning about the different conditions in which their knowledge can be

applied, and learning in multiple contexts in order to induce abstraction of the knowledge

gained (Collins et al., 1991; Collins et al., 1987). Community of practice refers to the

creation of a learning environment that fosters communication and collaboration in order to solve problems and carry out tasks (Collins, 2006; Collins et al., 1991; Collins et al., 1987). Intrinsic motivation in the context of cognitive apprenticeship refers to embedding opportunities for learners to internalize the benefits of the learning experiences through interest or a self-motivating goal as opposed to extrinsic motivators such as grades or compliance (Collins, 2006; Collins et al., 1991; Collins et al., 1987). The final component of sociology refers to exploiting cooperation and includes having learners work together to nurture collaborative problem solving (Collins, 2006; Collins et al., 1991; Collins et al., 1987).

Cognitive apprenticeship builds on the work of Lave (1978) by adding depth and breadth to the apprenticeship concept by incorporating the four main elements to the cognitive apprenticeship: content, method, sequence, and sociology. (Collins, 2006; Collins et al., 1991; Collins et al., 1987). This conceptual framework closely aligns with this dissertation due to the clinical recommendations outlined in the literature. Each facet of the conceptual framework fits together to construct the optimum learning experience referring back to Lave's (1978) work in the African tailor shop where learning went beyond simple demonstration. The layers and support offered from cognitive apprenticeship work to scaffold, engage the learner's metacognition, and support self-regulation, all of which are essential for the work of learning to teach. The framework will serve as the filter and lens through which I will construct meaning of the literature, data, and conclusions.

Need for Further Study

Findings from a review of current literature suggest a gap exists between university teacher preparation coursework and the realities of the K-12 classroom (Franklin-Torrez & Krebs, 2012). More can be learned about the relative contributions of coursework and fieldwork to teachers' progress in learning to teach, specifically the ways in which the coursework integrates into the fieldwork and under what fieldwork conditions the student teachers are most likely to learn effectively (Wilson et al., 2001). Ball and Forzani (2010) state, "Students must have teachers who are prepared to help them learn, not beginners who are struggling themselves. Allowing teachers to learn at our young people's expense is unethical" (p. 12).

Since student teaching is a major component of the professional preparation of teachers, it is necessary to gain a nuanced perspective on the situated sociocultural realities of field experiences (Cuenca, 2011). The structure and content of the student teaching experience can be more closely examined in order to enhance the teacher education program to effectively prepare preservice teachers (Choy et al., 2013). A systematic examination of whether and which specific features of student teaching are related to better teacher outcomes is a necessity (Ronfeldt & Reininger, 2012). In addition to better teacher outcomes, more research is needed to determine which elements in student teaching support teacher candidates' learning to teach in diverse settings (Lee et al., 2012). There is a need to identify program features and core practices associated with effective initial teacher preparation (Wilson, 2009). Specifically, effort is needed to separate the elements of clinical preparation that result in highly effective new teachers (Grossman, 2010).

Chapter 3: Methodology

Introduction

A concurrent mixed methods design was used in this dissertation. The study's design included quantitative and qualitative data collected simultaneously, analyzed separately using appropriate data analysis techniques specific to quantitative and qualitative research methods, and then merged for synthesis. In this study, quantitative survey data were used to collect information about the factors that student teachers and university supervisors perceive as most important in a quality student teaching experience. Constructed response survey questions and focus groups were used to explore the perceptions of student teachers and university supervisors in greater depth. The justification for collecting both quantitative and qualitative data is to provide a more robust understanding of what factors student teachers and university supervisors perceive to be most important in a quality student teaching experience.

Connection to Conceptual Framework

According to the literature, the factors influencing the quality of a student teaching experience are the mentor teacher (Beck & Kosnik, 2002; Clarke et al., 2013; Cuenca, 2011; Fazio & Volante, 2011; Franklin-Torrez & Krebs, 2012; Glenn, 2006; Grossman, 2010; Killian & Wilkins, 2009; Levine, 2006; Moody, 2009; Sayeski & Paulsen, 2012), the clinical learning environment (Choy et al., 2013; Cohen et al., 2013; Darling-Hammond, 2010b; Grossman, 2010; NCATE, 2010; Ronfeldt & Reininger, 2012; Ulvik & Smith, 2011;

Zeichner, 2010), and the university supervisor (Boyd et al., 2009; Killian & Wilkins, 2009; Pepper et al.,2012; Ronfeldt & Reininger, 2012). Student teaching experiences are a type of apprenticeship in which the student teacher is learning as an apprentice under a master teacher. The factors of the mentor teacher, the clinical environment, the university supervisor, and the student teacher, are associated with the quality of a student teaching experience and fit within a conceptual framework developed by Collins et al. (1991) known as cognitive apprenticeship.

As stated in Chapter 2 of this dissertation, Collins et al., (1991) outlined the four main elements of cognitive apprenticeship: content, methods, sequence, and sociology. According to Collins (2006), content refers to the types of knowledge required for expertise, method outlines the ways to promote the development of expertise, sequencing attends to the order of learning activities, and sociology encompasses the social characteristics of learning environments. Together, the combination of these four elements increases the quality of the learning situation for student teachers.

Each of the four main elements of cognitive apprenticeship are directly related to the four research questions. Just as Collins et al. (1991) stated that these four elements increase the quality of a learning situation, the extensive review of the literature revealed four factors that are essential for a quality student teaching experience including the mentor teacher, the clinical environment, the university supervisor, and the student teacher. Each of these four factors connects, and in some cases overlaps, with the four main elements of cognitive apprenticeship as seen in Figure 2.
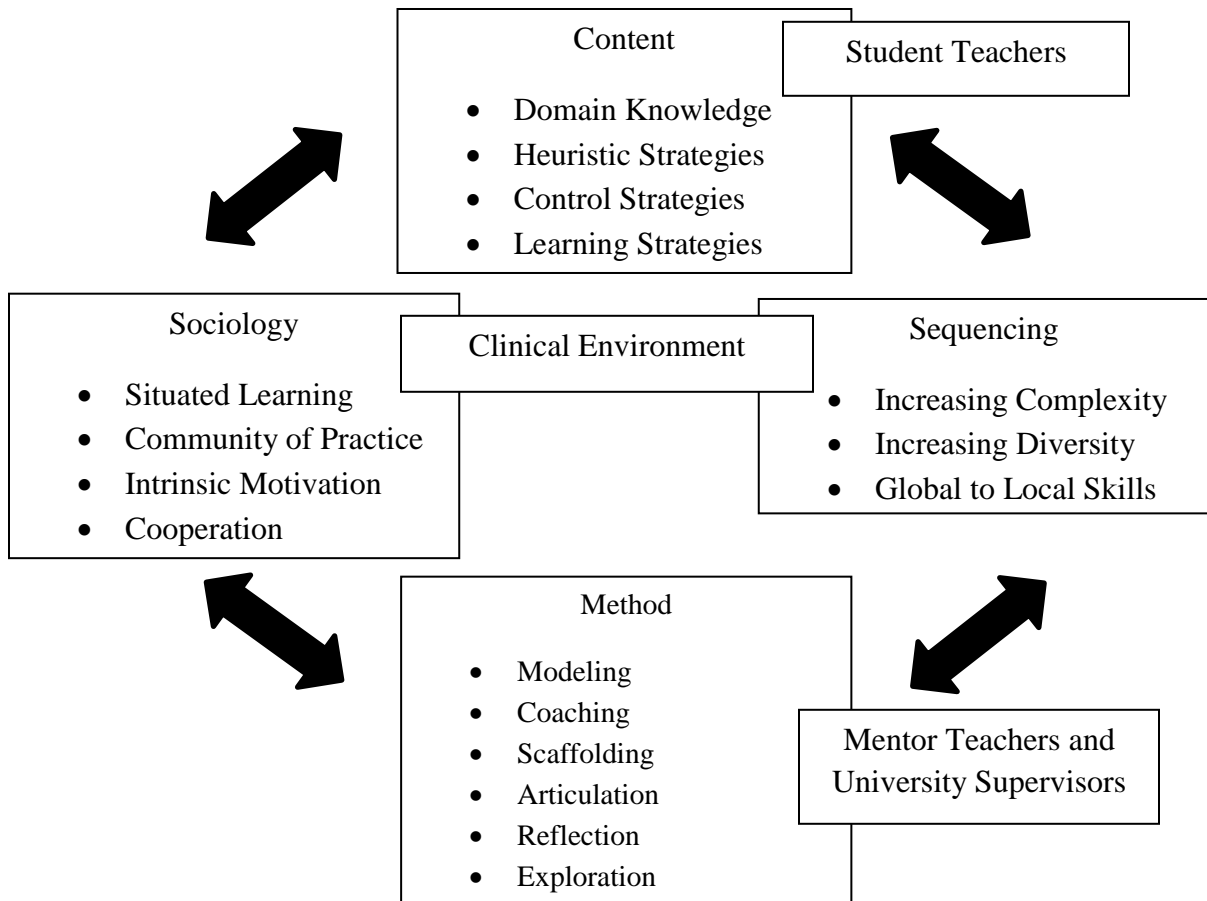
Figure 2. Elements of a cognitive apprenticeship model merged with factors related to quality student teaching experiences. Elements of a cognitive apprenticeship adapted from Collins, et al., 1987, p.13.

I generated the research questions by merging the four elements of cognitive apprenticeship with the four factors established in the literature review in order to determine what specific attributes of each factor student teachers and university supervisors perceived as most important in a quality student teaching experience.

Research Questions

This study explored the perceptions of student teachers and university supervisors regarding the four factors of a quality student teaching experience. The following research questions guided this study:

1. What specific attributes do student teachers and university supervisors perceive as most important in a mentor teacher?

2. What specific attributes do student teachers and university supervisors perceive as most important in a clinical environment?

3. What specific attributes do student teachers and university supervisors perceive as most important in a university supervisor?

4. What specific attributes do student teachers and university supervisors perceive as most important in a student teacher?

Research Design and Rationale

This study employed a concurrent mixed methods design to address these research questions. Mixed methods design is a method of inquiry that involves collecting, analyzing, and integrating both quantitative research methods and qualitative research methods to investigate the same phenomenon (Onwuegbuzie & Leech, 2006). The major purpose of merging quantitative and qualitative data is to provide a deeper understanding of the research questions than can be afforded by a single approach (Creswell & Plano Clark, 2011).

The use of mixed methods should not be to simply mix different research paradigms, but rather to work from the paradigm of pragmatism (Creswell & Plano Clark, 2011).

Johnson, Onwuegbuzie, and Turner (2007) stated that the primary philosophy of mixed methods research is pragmatism. Pragmatism is geared toward practical application as it is "pluralistic and oriented toward what works and practice" (Creswell & Plano Clark, 2011, p. 41). In defining the ontology of pragmatism, it is generally understood that there are single and multiple realities. This ontology lends itself to the epistemology of relativity and practicality by finding what works to address the specific research questions (Creswell & Plano Clark, 2011). As pragmatism is used to ground this dissertation, the implications will be seen as relative and practical to answering the specific research questions relating to teacher preparation. This philosophical lens provides an opportunity to view the research questions in a holistic way. Johnson and Onwuegbuzie (2004) stated that mixed methods should "use a method and philosophy that attempts to fit together the insights provided by quantitative and qualitative research into a workable solution" (p. 16).

In a seminal piece focused on mixed methods, Jick (1979) juxtaposed basic ideas from geometry that providing multiple viewpoints allow for greater accuracy, to collecting different kinds of data to improve a researcher's accuracy in evaluating the same phenomenon. For the purposes of this study, collecting multiple data points provided a more robust understanding of the research questions and built strength and accuracy into the conclusions. Denzin (1978) outlined early ideas of how to use multiple data sources and combine methodologies, also referred to as triangulation, and defined triangulation as "the combination of methodologies in the study of the same phenomenon" (p. 291). In this study, I explored the research questions with triangulation in order to better understand the quantitative and qualitative data.

The concurrent mixed methods design approach consists of implementing

quantitative and qualitative methods during the same phase of the research process, or

concurrently (Creswell & Plano Clark, 2011; Onwuegbuzie & Leech, 2006; Teddlie &

Tashakkori, 2006). Morse (1991) referred to concurrent mixed methods as "simultaneous

triangulation" (p. 122). Concurrent mixed methods design was created to bridge feelings of a

"forced choice dichotomy between positivism and constructivism" (Creswell & Plano Clark,

2011. p.27). The concurrent mixed methods design, also referred to as Convergent Parallel

Design, is one of the most widely used approaches in mixed methods research (Creswell &

Plano Clark, 2011; Hesse-Biber, 2010). Greene (2006) stated that a "distinctive characteristic

of mixed methods methodology is its paradigmatic pluralism" (p. 98). Researchers can also

gather evidence to strengthen conclusions using the mixed methods approach rather than

focusing on one specific research methodology (Johnson & Onwuegbuzie, 2004).

Triangulation's strength lies in the notion that there are weaknesses in each single research

method that can be balanced with the strength of the other (Jick, 1979). Qualitative data are

used to cultivate and explain the statistical results by exploring participants' views in greater

depth (Creswell, 2005; Hesse-Biber, 2010; Rossman & Wilson, 1985; Tashakkori & Teddlie,

1998). In the concurrent design, data are collected simultaneously, analyzed separately, and

then merged during the interpretation phase. See Figure 3 for a visual representation of the

concurrent design by Creswell and Plano Clark (2011).
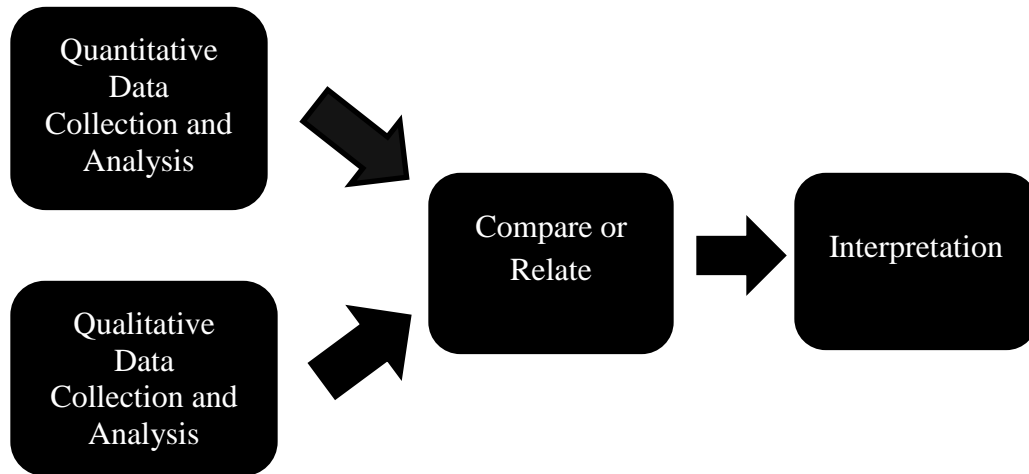
Figure 3. Concurrent mixed methods design diagram. Adapted from Creswell & Plano Clark, 2011, p. 69.

There are several key strengths to this design: It makes intuitive sense, it is efficient, and each type of data can be collected and analyzed separately with techniques commonly associated with that data type (Creswell & Plano Clark, 2011). Another strength of this design is that it can answer a broader scope of questions because researchers are not confined to one research methodology or approach (Johnson & Onwuegbuzie, 2004). This freedom offers researchers the opportunity to explore the research problems with a wide lens rather than a narrow focus constrained by a specific paradigmatic loyalty.

While there are great benefits to this design, there are also challenges. In order to effectively implement the two differing research methods, expertise in both quantitative and qualitative data collection and analysis is required (Creswell & Plano Clark, 2011). Johnson and Onwuegbuzie (2004) stated that researchers must have a suitable understanding of both quantitative and qualitative research methods in order to mix the methods appropriately. A researcher using this mixed method approach must be adept at crossing between research methodologies and then synthesizing the data gleaned from both. A challenge in this approach is merging the two sets of very different data in a meaningful way. This merging is

a challenge because the coding practices, as well as interpretation, have to be completed carefully to ensure that the analysis reflects meaningful results. Researchers must be prepared to diagnose process or data problems if the quantitative and qualitative results do not seem to agree (Creswell & Plano Clark, 2011). In this event, additional data collection may be required or a different analytic procedure may need to be implemented (Creswell & Plano Clark, 2011). Johnson and Onwuegbuzie (2004) posited that research methodologists are still trying to develop ways to address how to interpret conflicting quantitative and qualitative results.

Context of the Study

I collaborated with the Associate Dean of Field Experiences within the College of Education at a mid-sized southeastern university to discuss data collection for this dissertation. The proposal presented to the Associate Dean of Field Experiences examined the factors of quality student teaching experiences. Once the proposed study was presented, I began the Institutional Review Board process and was granted an exemption (See Appendix A). The Associate Dean of Field Experiences granted permission to conduct the study at the university in the College of Education and provided an opportunity to gather data during the student teaching seminar on March 24, 2014. For this seminar, all student teachers and university supervisors from the university were on campus and were available to participate by providing input on the survey. Some student teachers and university supervisors participated in focus group sessions. At the time of the seminar, student teachers had completed their independent teaching segment of the gradual responsibilities format associated with the semester. Overall, 307 student teachers from the 18 teacher education programs and 48 university supervisors from the university were invited to participate in this

study. While the university is in rural Appalachia, the student teaching experiences represented a wide span of socioeconomic and geographic demographics across the western and central parts of North Carolina. The 48 university supervisors oversaw student teachers based on their proximity to the student teaching placement.

Participants

As stated above, two groups of participants were involved in this study. In cooperation with the Office of Field Experiences the following sample of participants provided data for this study.

Student teachers. Student teachers were selected to participate in this study based on their completion of a traditional teacher preparation program coursework and near completion of student teaching under the guidance of a university supervisor. The survey sample included 307 student teachers who were invited to complete the survey. In addition, two groups of four student teachers were randomly selected from a list provided by the Associate Dean of Field Experiences and invited to participate in the focus group sessions.

University supervisors. University supervisors were also invited to participate in this study. University supervisors are employees of the university and serve as liaisons between the university and the local school districts where student teachers are placed. The university supervisor's primary responsibilities were placing and supervising the student teachers. In order to participate in this study, the university supervisors must have supervised at least one student teacher during the spring 2014 semester. All 48 university supervisors were asked to complete the survey. In addition, one focus group of seven university supervisors was randomly selected from a list of university supervisors provided by Associate Dean of Field

Data Sources

The data sources utilized in this study included qualitative and quantitative survey data and focus group data. The following sections outline each of the data sources as well as the rationale for using them.

Survey. The survey designed for this study was based on an extensive literature review. The subsequent section details the significance of survey research as well as the process for this study's survey creation.

Survey research. Survey research continues to grow in popularity its versatility, efficiency, and generalizability (Check & Schutt, 2011). Survey research dates back to 1817, but modern surveys most familiar today began to emerge during the periods of World War I and World War II (Creswell, 2005). There are essentially two basic types of research surveys: cross sectional and longitudinal (Creswell, 2005). This study employed a cross sectional survey designed to compare two or more educational groups' opinions at one point in time as opposed to longitudinal surveys which collect data over time (Creswell, 2005, p. 356).

Survey research has contributed a great deal to education and the social sciences (Ololube & Kpolovie , 2012). Ebel (1980) contended that those who study and practice survey research in education share the common goal of improving the effectiveness of an educational initiative. Research methods in the form of surveys or questionnaires, eliciting students' self-report on competencies, is now a common practice (Braun, Woodley, Richardson, & Leidner, 2012). As survey data relies on the accounts of participants, the concept of self-report is critical given that they are considered to be a primary source of data in psychology and the social sciences (Schwarz, 1999). According to Check and Schutt

(2011), survey research is often the only available means to develop a representative idea of attitudes and characteristics of a large population.

Survey instrument development. The instrument used for all participants in this study was developed based on the emergent themes from the literature review on student teaching clinical experience (Appendix B). The specific factors that emerged from the literature as having the greatest impact on successful student teaching clinical experiences were closely related to the attributes of the mentor teacher, clinical environment, university supervisor, and student teacher. After a thorough analysis of the instruments found in the literature, the surveys that were most similar to answering the research questions for this dissertation were open-ended and did not align with the specific research questions. Examples of the studies that were similar but did not align with the research questions include Franklin-Torrez and Krebs (2012) and Ulvik and Smith (2011). It would have been difficult to examine the comprehensive factors of a quality student teaching experience with the existing surveys due to their narrow scope and lack of alignment with the research questions. Based on the absence of a survey instrument that aligned with the specific research questions I used four emergent factors and attributes in the literature related to quality student teaching experiences to develop a survey to address the research questions.

Under the supervision of the dissertation committee, I developed the survey in three phases: initial development, content validity and examination, and revision. In phase one, the preliminary survey questions were created. I created a bulleted list of main points from each of the four factors that influence the quality clinical experience found in the literature review. Once the bulleted list was generated, the list was further condensed into major points that had the highest frequency in the literature. Once the strongest points from the literature were

identified, each major point was expanded into Likert-type response items. According to Check and Schutt (2011), Likert-type responses ask that participants indicate the extent to which they agree or disagree with statements presented.

During phase two, preliminary questions were developed and refined. The questions were examined for content validity through my consultation with content experts consisting of teacher educators and the dissertation committee. Check and Schutt (2011) contended that every survey should be piloted on a small sample similar to the sample to be surveyed to improve the quality of the instrument. I piloted a hard copy of the survey with a small sample of three student teachers for feedback based on the content and presentation of the survey instrument. Creswell (2005) suggested that pilot participants should provide written comments directly on the survey in order to provide researchers feedback to make modifications and changes to reflect the concerns. The pilot participants made very few suggestions for improvement which related mostly to word choice.

During phase three, content revisions were conducted to refine all questions and to eliminate ambiguous or unnecessary questions. Modifications were made based on the feedback provided by the committee and pilot participants. Once the final questions were established (see Appendix B), the instrument was prepared for approval of the dissertation committee, the Institutional Review Board, and the Associate Dean of Field Experiences.

Reliability of the survey. According to Braun et al. (2012), a critical requirement of any psychometric instrument is reliability, meaning that the survey must yield consistent results if used repeatedly under the same conditions with the same participants and must be unaffected by errors of measurement. The most commonly used index in measuring internal consistency of an instrument is to estimate reliability is Cronbach's (1951) coefficient alpha

(Braun et al., 2012). For this dissertation, once the data were collected, the use of Cronbach's coefficient alpha test was conducted to rate inter-reliability of the survey instrument. Results of the Cronbach's alpha test are reported in Chapter 4.

Validity of the survey. The definition offered by Creswell (2005) states that validity "means that researchers can draw meaningful and justifiable inferences from scores about a sample or population" (p. 600). Messick (1995) discussed how "validity is not a property of a test or assessment, but rather the meaning of the test scores" (p. 741). Threats to validity specific to survey research are internal threats of missing data and the potential for participants to respond based on social desirability Creswell (2005). With all participants being from the same university, external threats included a lack of ability to generalize the data to populations outside of this study.

According to Messick (1995), validity is primarily related to meanings and consequences of measurement. Further, Messick (1995) discussed the unitary concept of validity specifically construct validity. Construct validity is the evidence and rationales supporting the trustworthiness of the score interpretation that account for test performance and score relationships with other variables (Messick, 1995, p. 743).

Messick (1995) outlined the major threats to construct validity as construct underrepresentation and construct-irrelevant variance. Construct underrepresentation occurs when the assessment is too narrow and fails to "include important dimensions or facets of the construct" (p. 742). Construct-irrelevant variance is when the assessment is too broad and contains "excess reliable variance associated with other distinct constructs" as well as "method variance such as response sets or guessing propensities that affects responses in a manner irrelevant to the interpreted construct" (Messick, 1995, p.742). To mitigate validity

errors in the instrument, the survey was based on the literature, piloted by practicing student teachers for feedback and clarity, and examined by the dissertation committee. Revisions were made to the survey based on the feedback from the pilot participants and the committee in order to ensure the instrument was valid. In addition, participants were asked a series of demographic questions.

Focus groups. The focus group interview protocol for this study was based on the study's research questions (see Appendix C). During focus groups, participants were asked to respond to questions related to the importance of each factor in a quality student teaching experience as well as the attributes of each. The next section details the significance of focus group research as well as the rationale for incorporating focus group research into this study.

Focus group research. While researchers have used group interviews to collect data for years, the mid 1980s created a surge of interest in focus group research following Robert Merton's 1987 published remarks concerning the value of focused interviews during market research (Morgan, 1996). The work by social scientists Krueger and Morgan encouraged other researchers to pursue focus groups as an area of interest (Morgan, 1996). Krueger (2009) defined focus groups as carefully planned discussions designed to obtain perceptions on a defined area of interest in an environment that is nonthreatening (p. 6). According to Kitzinger (1995), focus groups are "particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way" (p. 299).

Just as the survey data were essential to exploring the breadth of the research questions, the focus groups in this study were designed to address the depth of the survey questions by examining how the participants make sense of their student teaching and

supervising experiences. Morgan (1996) stated that combining focus groups data together with survey data is one of the "leading ways of combining quantitative and qualitative methods...since the two methods produce such different kinds of data" (p. 134). While there are potential advantages in utilizing focus group research, Krueger (2009) discussed challenges of focus group data collection.

Often focus groups are composed of strangers or individuals who have had minimal contact (Krueger, 2009). One challenge of focus groups is that they rely heavily on self-disclosure which may be more easy, comfortable, and natural for some participants than for others (Krueger, 2009). When facilitating focus groups, knowledge of the varying comfort levels of participants is important to encourage participants to talk as well as to monitor individuals who tend to dominate the conversation (Creswell, 2007). During the focus group process I continually monitored participants to ensure that all were participating by engaging participants who seemed reluctant to respond by redirecting participants who seemed overly eager to share their experiences.

Focus group interview protocol. I designed the focus group interview protocol (see Appendix C) and it was approved by the dissertation committee and the Institutional Review Board. I constructed the protocol to be congruent with the research questions and the survey. The goals of the focus group process were to gain deeper insight into the research questions and to provide interactions to elicit honest responses in the setting of a focus group that may otherwise be minimal in the constructed response survey items.

Data Collection Procedures

As a part of the concurrent mixed methods design of this study, I used quantitative and qualitative data collection methods. I collected data using both methods within the same

period of time. The Office of Teacher Education Assessment distributed the online survey component of the study to all participants on March 21, 2014 with a closeout date of April 8, 2014. During the scheduled meeting times with student teachers at the spring student teaching seminar on March 24, the university supervisors provided information about the study in an attempt to increase the response rate. A dissertation committee member and I conducted the focus groups on Monday, March 24, 2014.

Survey data collection. I developed one survey that was administered to all of the student teachers. I developed a separate survey that was administered to all of the university supervisors. In this study, I collected data from the group of participants with diverse student teaching experiences in order to provide more generalizability to the university's education program. The Office of Teacher Education Assessment distributed the survey to student teachers and their university supervisors via SelectSurvey, a web-based survey system used for creating and deploying surveys for the university. The survey was comprised of quantitative items as well as qualitative items. The surveys were confidential with the identifiable information kept in the Office of Teacher Education Assessment and not shared.

The Director of Teacher Education Assessment sent the student teachers and university supervisors the web link for the online survey using SelectSurvey. Student teachers and university supervisors were invited to access the survey to make a decision about participation. The first screen of the survey provided and informed consent and details about the study including the contribution of the participants. Participants were not required to answer any survey items.

Participation in the survey was completely voluntary. The survey was constructed so that participants could not proceed beyond the informed consent if they did not agree to

participate. Selectsurvey only allowed one submission per participant and took no longer than 25 minutes to complete. The surveys were confidential and asked student teacher participants for basic demographic information including age, sex, race, and student teaching school placement characteristics. In addition to basic demographic information, university supervisors were asked basic questions related to their supervising experience.

Focus group data collection. In addition to participating in the survey, eight student teachers were randomly selected and invited to participate in focus groups. There were seven university supervisors selected by the Associate Dean of Field Experiences based on their experience levels and invited to participate in focus groups. All focus group participants completed an informed consent upon arrival to the session.

The student teachers were divided into two groups of four, while the university supervisors remained together as one group. The Associate Dean of Field Experiences provided the entire list of student teachers and university supervisors. Invitations were sent based on a random sampling of the students. For the university supervisors, the Associate Dean of Field Experiences provided a list of seven university supervisors that had multiple years of experience supervising students. I invited each participant to participate in one focus group, with the time and location of the session included in the invitation email.

The duration of each focus group session was approximately one hour. As recommended by Kitzinger (1995), the responses of the participants were audio recorded and then later transcribed for coding. The focus group qualitative data collection protocol and constructed response items were aligned with the research questions but written in an open-ended response format to address greater depth (see Appendix C).

Data Analysis

For this study, the qualitative data analysis occurred first and was followed by the quantitative data analysis. The rationale for using this order was to avoid having the quantitative data influence the qualitative data analysis. Once each set of data was analyzed separately, I merged the two data sets through a side-by-side comparison table for synthesis as seen in Chapter 4 (Creswell & Plano Clark, 2011). I utilized the side-by-side comparison table to correlate the quantitative survey items with the qualitative themes. As part of this synthesis, I used the conceptual framework as the lens to interpret the data. Creswell and Plano Clark (2011) outlined a four-step process for a convergent mixed methods design, which includes the following:

1. Concurrently collect both quantitative and qualitative data in which one type of data does not depend on the other.

2. Analyze the two data sets separately and independently of each other equally weighted in importance to the study using typical quantitative and qualitative analytic procedures.

3. Once the two sets of initial results are complete, merge the results of the two sets of data. The merging may include directly comparing the separate results or transforming results.

4. Interpret how the data from the two sets relate to each other and/or combine to create a better understanding to the study's overall purpose. (p. 78)

Qualitative data analysis procedures. First, I transcribed the recordings of each focus group in order to prepare them for analysis. All of the transcripts were uploaded into Dedoose. Dedoose is a web-based interactive platform that is designed to assist researchers

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with qualitative and mixed methods data analysis. The program is an online collaborative tool which allows researchers to upload their raw data either as text, audio, or video, and then code and analyze the data using basic analysis functions such as frequency counts.

In addition to transcription data, I also prepared the constructed response data from the survey for analysis. I compiled all of the constructed responses into one document and uploaded the data into Dedoose. Then I conducted a transcript-based analysis of each focus group and constructed response data set using Dedoose. According to Krueger (2009), transcript-based analysis is the most time intensive and rigorous method available for analyzing focus group data. Krueger (2009) provided a 6-step process for transcript-based analysis which included reading the transcripts one category at time, looking for emerging themes by research question, developing coding categories, coding the data, sorting coded data, and diagraming the analysis.

For both the focus group data and the constructed response data, I used open-coding strategies. I highlighted text from the transcripts, created a code in Dedoose, and assigned that text a code using the Dedoose tools. The codes were made up of words explicitly used in the text or a summary of a line in the text. As I created new codes, Dedoose counted the frequency of how many times each code was assigned.

As new codes emerged, I examined the transcripts to see if the new codes applied to previously coded portions of text. Then, I grouped the codes by the four research questions that the participants answered. After all data were open-coded, I reexamined the transcripts thoroughly to ensure that codes were not overlooked and to confirm that codes were accurate. Upon conclusion of all open-coding and a review of the coded texts, I generated frequency spreadsheets using the code counts generated by Dedoose.

Following the processes outlined in the literature by Creswell (2007) and Krueger (2009), I began the next phase of sorting codes. First, I sorted the codes by research question. Second, I began category construction of the codes within each research question by examining the codes for relationships between codes. Third, I sorted the codes until small clusters of codes were grouped by similarities or relationships. If I discovered codes that seemed redundant, they were collapsed into a parent code. Finally, when I was unable to collapse the codes any further, the remaining parent codes were synthesized into a theme. I repeated this process by research question for each set of codes until all coded data had been clustered, collapsed, and synthesized into a theme. Following my grouping and theme construction, an expert panel of professional educators evaluated the accuracy of each theme and code construction to provide greater reliability and validity within the data. The following flow chart illustrates the process I used to complete this process (see Figure 4).
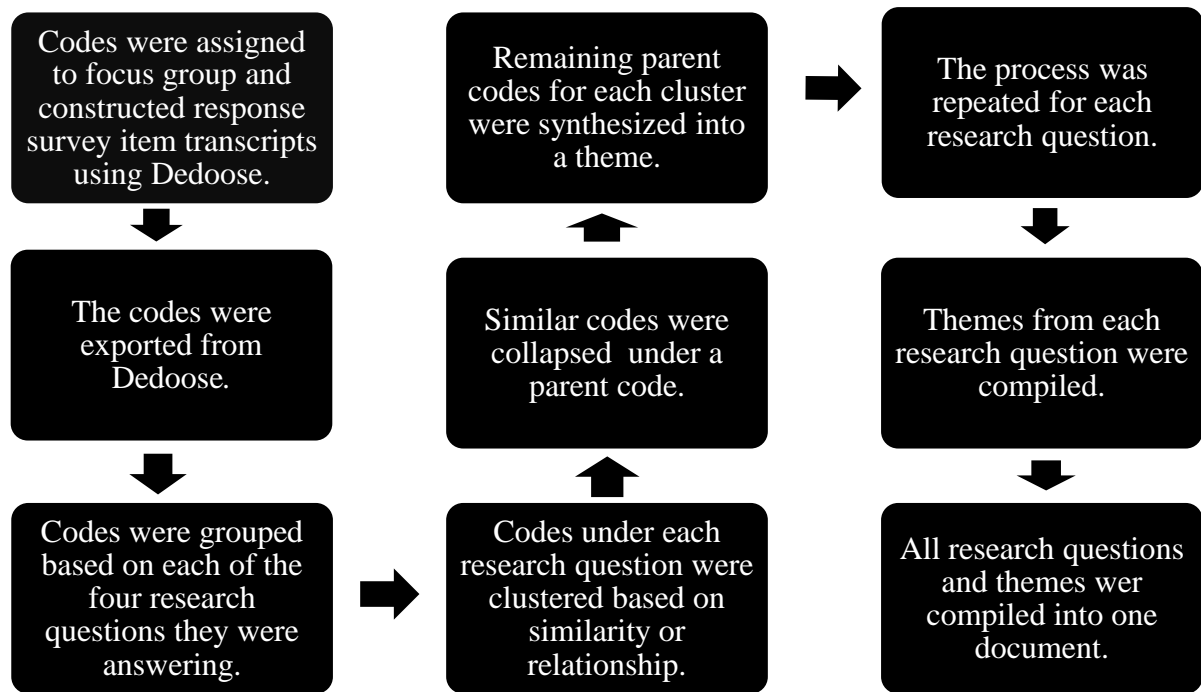
Figure 4. Qualitative data analysis procedure flow chart.

Quantitative data analysis procedures. Quantitative data for this study came from the survey I created and administered via SelectSurvey. Likert-type items on the survey ranged from one (*not important*) to five (*extremely important*) Other items on the scale were categorical and demographic in nature (see Appendix B)..

Data were first exported from SelectSurvey into Microsoft Excel and each case was given a numerical identifier. Data were screened for missing responses. If a student teacher or university supervisor's data entry was incomplete, I removed the participant's data from the database ensuring that all participants during the analysis phase had complete data sets. Data were then imported into Statistical Package for the Social Sciences (SPSS Version 20) for analysis.

In order to examine quantitative survey data in a more concise way, mean scores for each of the four constructs represented on the survey were computed for each participant. Demographic data were coded categorically. Descriptive statistics were then computed for each construct and for the demographic data. I chose to use descriptive statistics rather than inferential statistics because the purpose of the study was to examine perceptions of one group as opposed to examining inferences to the population. Additionally, the sample size was not large enough nor was it a random for inferential statistics. The descriptive results are reported in Chapter 4. Once the quantitative results were analyzed, they were included in a side-by-side comparison summary table with the qualitative data as seen in Chapter 4 (Creswell & Plano Clark, 2011).

Quantitative and qualitative merging procedures. As previously discussed, Creswell and Plano Clark (2011) outlined a four step process for a convergent mixed methods design. In step one, quantitative and qualitative data are collected separately

following appropriate data collection protocol for each data type. The second step includes analyzing the quantitative and qualitative data separately using appropriate data analyses for each data type. In the third step, the results of the two sets of data are merged. In step four, the merged results are interpreted. The merging step may include directly comparing the separate results or transforming results depending on the type of analysis. The researcher then interprets how the data from the two sets converge, diverge, or relate to each other, and combines the sets to create a better understanding of the study's overall purpose.

Once both quantitative and qualitative data were collected and analyzed separately, the major content and themes from both data sets were inserted into a side-by-side comparison summary table (Creswell & Plano Clark, 2011). The purpose of presenting both the quantitative and qualitative results in the summary table is for easier comparison (Creswell & Plano Clark, 2011). According to Creswell and Plano Clark (2011), the data are presented side-by-side for readers to see how both data sources "provide evidence for each topic" (p. 226). Once the data sets were combined, I looked for consistencies, inconsistencies, conflicts, and contradictions (Creswell & Plano Clark, 2011).

Conceptual framework connections and analysis. In addition to the interpretation of each data type individually and then merged, the data were examined through the conceptual framework of cognitive apprenticeship. Each item and factor to be analyzed was connected to the elements of the conceptual framework. Using the elements of the conceptual framework (content, methods, sequence, and sociology), I determined which factors, or combination of factors, were perceived as most important in fostering quality student teaching experiences. Collins et al. (1991) stated that these four elements promote an ideal learning environment. The factors from the data analysis were analyzed in conjunction with

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the factors that have been previously articulated in the literature. The connections to the conceptual framework were presented in the synthesis of the side-by-side summary table.

Reliability and Validity of the Design

  Threats to validity. Validity in mixed method work can be addressed during different phases of the research process. Teddlie and Tashakkori (2006) discussed validity during the design and interpretation stages of research by addressing the fidelity and rigor of the procedures as well as the analytic interpretation of data. Whereas, Onwuegbuzie and Johnson (2006) articulated the desire of some researchers to place more of an emphasis on validity concerning the actual data analysis phase of research. Creswell and Plano Clark (2011) argued that the idea of validity is involved in all facets of the research process from data collection, to analysis, interpretation, and the analytic techniques used in merging the data sets for interpretation. I was as transparent in processes as possible to mitigate validity concerns in data collection and analysis to provide greater credibility to the findings. Throughout the research process I worked closely with the dissertation chairperson, the methodologist, and the committee members in order to ensure that the study adhered to stringent processes and analyses.

  Threats to data collection. Creswell and Plano Clark (2011) identified specific threats to validity and outlined specific strategies for minimizing these threats during data collection including inappropriate sampling and researcher's bias. One concern was inappropriate sampling which could include quantitative and qualitative data being collected from different samples. Another concern is the possibility of bias influencing one of the data sets, for example if the focus group discussions were guided based on the quantitative results (Creswell & Plano Clark, 2011). Some of the suggestions for minimizing the threats from

these scenarios include selecting quantitative and qualitative samples from the same population, using different data collection procedures, analyzing the data at the end of collection rather than while one or the other data collection is occurring, and addressing the same questions in both quantitative and qualitative data collection (Creswell & Plano Clark, 2011). In this study, the quantitative and qualitative samples were drawn from the same populations. While the data collection occurred concurrently, the quantitative data collection was conducted independently from the qualitative data collection. Therefore, the gathering of one set of data did not influence the other. The quantitative and qualitative data were all addressing the same questions in this study which worked together to provide alignment and triangulation to all data sets.

Threats to data analysis. Potential validity threats regarding data analysis were outlined by Creswell and Plano Clark (2011) and included the following: being unable to merge the data in an understandable way, using data transformation approaches that are difficult to convert from one data set to the other, and inappropriately using statistics when analyzing quantified qualitative results. Strategies for mitigating these potential threats to validity include creating a data representation that displays both the quantitative and the qualitative themes, finding statements from qualitative data to support the statistical results, and creating codes for counting themes that enable a straightforward transformation of the data (Creswell & Plano Clark, 2011). For this study, I analyzed the quantitative and the qualitative data separately. Qualitative data were coded and synthesized into themes and then represented in a table seen in Chapter 4. I was able to synthesize the statistical analyses and qualitative themes inserted into a side-by-side summary table.

Threats to interpretation. With regard to identifying potential validity threats for the interpretation phase, Creswell and Plano Clark (2011) identified some potential issues including not being able to resolve divergent findings, not addressing the research questions, and placing unequal weight on one data type over the other. I utilized these suggestions for minimizing threats by reanalyzing current data and evaluating the procedures in data collection in order to ensure that each research question was addressed and to develop procedures to present results in an equal way (Creswell & Plano Clark, 2011).

Ethical considerations. In research concerning human subjects, strong ethical considerations are essential. This study went through an Institutional Review Board review process prior to beginning data collection. Participants taking the survey were presented the informed consent and had the option to acknowledge their understanding of the terms of participation by proceeding with the survey. Participants who declined to accept the informed consent did not continue further. Any identifiable participant information remained within the Office of Teacher Education Assessment indefinitely throughout the research process and will be destroyed upon conclusion of this dissertation.

Focus group participants were asked to sign an informed consent document prior to participation in the focus groups. Participant information remained confidential and was associated with pseudonyms for the qualitative elements and with randomly assigned numbers for the quantitative elements of this study. The two sets of data were unable to be linked because all identifiable information was retained by the Office of Teacher Education Assessment.

In both survey and focus groups, participants were only asked questions that pertained to their own experiences and were asked not to answer any questions that they did

not feel comfortable answering. All qualitative data were password protected throughout the research process and will be kept secure for up to five years following the conclusion of the dissertation to be used in post dissertation publications. All data collected, with the exception of identifiable data, was shared with the dissertation committee.

This chapter has provided a description and rationale for the concurrent mixed method design of this dissertation examining the perceptions of student teachers and university supervisors regarding the factors associated with quality student teaching experiences. In the following chapter, the quantitative and qualitative results are presented.

Chapter 4: Findings

Introduction

For this study, I examined the factors of quality student teaching experiences based on the perceptions of student teachers and university supervisors. Overall, the purpose of the dissertation was to analyze the perceptions of student teachers and university supervisors regarding factors of a quality student teaching experience. Each section in this chapter will present the findings related to one research question. Data are organized in tables representing the quantitative data, qualitative data, and merged data.

Research Questions

The following research questions guided this study:

1. What specific attributes do student teachers and university supervisors perceive as most important in a mentor teacher?

2. What specific attributes do student teachers and university supervisors perceive as most important in a clinical environment?

3. What specific attributes do student teachers and university supervisors perceive as most important in a university supervisor?

4. What specific attributes do student teachers and university supervisors perceive as most important in a student teacher?

Participant Demographics

       This section describes the student teacher and university supervisor demographics. For both student teacher and university supervisor groups, gender, age, and ethnicity have been reported. In addition to basic demographic information, student teachers and university supervisors were asked to report specific information related to their student teaching placements or supervisory experience.

       Student teacher survey demographics. All student teachers within the university's eighteen different teacher education programs were invited to participate in the study. Based on the overall makeup of the enrolled student teachers from the university, most of the 307 student teachers who were invited to participate in the survey were elementary education majors. The next largest groups were middle grades social studies and language arts, secondary history, and special education majors. Table 1 provides a frequency distribution of the student teachers who were enrolled during the spring 2014 semester and were invited to participate in the study.

       Of the 307 student teachers invited to participate, 135 student teachers responded to both qualitative and quantitative portions of the survey (44%). Three participants had significantly incomplete responses to the survey data and were removed leaving 132 student teachers in the analysis (43%). If students completed the survey data, but chose not to answer demographic information, their data sets remained in the analysis.

Table 1

Distribution of Student Teacher Programs Invited to Participate in the Study (n = 307)

Program	*n*	*%*
Elementary Education	111	36
MGE, SS, and LA	29	9
History, Social Studies Education Secondary	28	9
SPED General Curriculum K-12	28	9
Birth-Kindergarten	18	6
Physical Ed Teacher, K-12	18	6
Mathematics, Secondary Education	15	5
English, Secondary Education	12	4
Music Education, Instrumental	10	3
Spanish Education	9	3
Art Education	8	3
Technology Education, Secondary Ed	7	2
Biology, Secondary Education	5	2
Business Education	3	1
Health Ed, Secondary	3	1
English, Creative Writing	1	0
Teaching Theatre Arts	1	0
Trade and Industry	1	0

Note. MGE = Middle Grades Education; SS = Social Studies; LA = Language Arts; SPED = Special Education; K-12 = Kindergarten through 12th Grade; Ed = Education; Sec = Secondary.

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Based on the student teachers who responded to the survey, 64% were placed in grades pre-kindergarten through fifth grade. The largest content representation was elementary education generalist, followed by English language arts, and then math. Student teacher participants reported their student teaching placement school as rural or suburban, while approximately 11% reported urban settings. Sixty-four percent of student teachers reported that they were placed in middle class schools while 22% were placed in schools in areas of high poverty. Approximately 75% of the student teacher respondents reported average to low teacher turnover rates in their schools. The mostly rural middle class demographics are representative of the student teaching placements due to the rural region of the university (Table 3).

Student teacher focus group demographics. Eight student teachers were randomly selected from the survey sample and invited to participate in one of two student teacher focus groups. Student teacher focus group participants consisted of seven females and one male, all were between 18 and 22 years old, and were Caucasian. Due to the random selection of the student teacher participants for the focus groups, seven were placed in elementary or middle schools and one was placed in a high school for their student teaching experiences. All of the student teacher participants reported their student teaching placement contexts as rural (Table 4).

Table 2

Student Teacher Survey Participant Demographics (n = 132)

Variable	Characteristic	*n*	*%*
Gender	Male	15	11.4
	Female	80	60.6
	Not specified	37	28.0
Age (years)	18-22	74	56.1
	23-27	19	14.4
	28-32	4	3.0
	33-37	4	3.0
	38-42	3	2.3
	43-47	6	4.5
	48-52	2	1.5
	53-57	2	1.5
	58-62	4	3.0
	63-67	6	4.5
	Over 68	1	0.8
	Not specified	7	5.4
Ethnicity	Asian	12	9.1
	African American	4	3.0
	Caucasian	93	70.5
	Hispanic	5	3.8
	Native American	5	3.8
	Biracial	13	9.8

Table 3

Student Teacher Survey Participant Placement Characteristics (n = 132)

Placement	Characteristic	*n*	*%*
Grade level	Pre-K	4	3.0
	K	7	5.3
	1	13	9.8
	2	35	26.5
	3	14	10.6
	4	7	5.3
	5	4	3.0
	6	4	3.0
	7	2	1.5
	8	9	6.8
	9	8	6.1
	10	12	9.1
	11	7	5.3
	12	6	4.5
Content area	General elementary	44	33.3
	ELA	29	22.0
	Math	19	14.4
	Science	5	3.8
	Social studies	12	9.1
	Other	23	17.4
Location	Urban	14	10.6
	Rural	79	59.8
	Suburban	39	29.5
Demographics	Affluent	18	13.6
	Middle class	84	63.6
	High poverty	29	22.0
	Not specified	1	0.8
Teacher turnover	High	32	24.2
	Average	61	46.2
	Low	36	27.3
	Not specified	1	0.8

Note. Pre-K = Pre-kindergarten; K = Kindergarten; ELA = English Language Arts.

Table 4

Student Teacher Focus Group Participant and Placement Characteristics (n = 8)

Variable	Characteristic	*n*	*%*
Gender	Male	1	12.5
	Female	7	87.5
Age (years)	18-22	8	100.0
Ethnicity	Caucasian	8	100.0
Placement grade level	Pre-K	0	0
	K	0	0
	1	0	0
	2	2	25.0
	¾	1	12.5
	5	0	0
	6	2	25.0
	7	1	12.5
	8	1	12.5
	9-12	1	12.5
Placement content area	General elementary	3	37.5
	Math	3	37.5
	Social studies	1	12.5
	SPED adapted curriculum K-12	1	12.5
Placement school context	Rural	8	100.0

Note. Pre-K = Pre-kindergarten; K = Kindergarten; SPED = Special Education; K-12 = Kindergarten through 12th grade.

University supervisor survey demographics. There were 32 of the 48 university supervisors employed for the semester that completed both the quantitative and qualitative portions of the survey (67%). Most participants were Caucasian females over 50 years old. Most participants had been supervising for less than 8 years, supervised between 6-10 students per semester, and were well experienced having supervised over 20 students in their careers (Table 5).

University supervisor focus group demographics. Overall seven university supervisors were selected and invited to participate in the university supervisor focus group. Six of the seven attended the session. Half of the university supervisor focus group participants were male and half were female. Each of the university supervisors served more than four years, supervised more than 20 student teachers, and managed between 6 and 10 students for the spring 2014 semester. See Table 6 for a complete distribution of university supervisor focus group participant demographics and service characteristics.

Validity of the Survey Instrument

The most commonly used index in measuring internal consistency of an instrument to estimate reliability is Cronbach's (1951) coefficient alpha (Braun et al., 2012). To measure the internal consistency of the survey instrument, I calculated the Cronbach's alpha test after data were collected. Both surveys had high levels of internal consistency (student teachers $\alpha = .94$; university supervisors $\alpha = .93$).

Table 5

University Supervisor Survey Participant Demographics and Service Characteristics (n = 32)

Variable	Characteristic	*n*	*%*
Gender	Male	11	35.5
	Female	19	61.3
	Not specified	2	3.2
Age (years)	28-32	1	3.2
	33-37	1	3.2
	38-42	0	0
	43-47	3	9.7
	48-52	1	3.2
	53-57	4	12.9
	58-62	10	32.3
	63-67	7	22.6
	Over 68	3	9.7
	Not specified	2	3.2
Ethnicity	Caucasian	30	96.8
	Hispanic	1	3.2
Years as supervisor	0-3	12	38.7
	4-7	13	41.9
	8-11	2	6.5
	12-15	1	3.2
	16-19	2	6.5
	20-30	0	0
	Over 31	2	3.2
Total student teachers supervised	1-5	2	6.5
	6-10	2	6.5
	11-15	2	6.5
	16-20	2	6.5
	Over 20	24	74.2
Student teachers supervised Spring 2014 semester	1-5	9	29.0
	6-10	21	67.7
	11-15	2	3.2

Table 6

University Supervisor Focus Group Participant Demographics and Service Characteristics
(n = 6)

Variable	Characteristics	*n*	*%*
Gender	Male	3	50
	Female	3	50
Age (years)	53-57	1	17
	58-62	1	17
	63-67	4	66
Ethnicity	Caucasian	6	100
Years as supervisor	4-7	3	50
	8-11	3	50
Total student teachers supervised	Over 20	6	100
Student teachers supervised Spring 2014 semester	6-10	6	100

Findings

The subsequent sections are organized by research question. The findings related to
the importance of each factor in a quality student teaching experience are presented first
followed by the findings related to the attributes for each of the four factors: the mentor
teacher, the clinical environment, the university supervisor, and the student teacher. For each
research question, the quantitative and qualitative results are presented separately followed
by the merged findings.

Analysis at the factor level. Student teachers and university supervisors ranked the importance of three of the four factors related to a quality student teaching experience: the mentor teacher, clinical environment, and the university supervisor. Student teachers and university supervisors rated the three factors in response to the prompt based on a Likert scale ranging from 1 (*extremely important*) to 5 (*not important*). Table 7 provides the factors presented in order with the highest aggregate mean to the lowest. The standard deviation is also presented beside each mean to provide the reader variability among responses of each. Student teachers and university supervisors perceived the mentor teacher as the most important factor related to a quality student teaching experience.

Table 7

Factor Level Analyses

How important is the…?	Student Teacher ($n = 132$)		University Supervisor ($n = 32$)		Aggregate ($n = 164$)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Mentor teacher	4.80	0.46	4.84	0.37	4.80	0.44
Clinical environment	4.53	0.68	4.26	0.77	4.48	0.71
University supervisor	4.33	0.93	4.39	0.72	4.34	0.89

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*).

Mentor teacher. The qualitative data support the importance of the mentor teacher to a quality student teaching experience. In the focus groups, I posed the question "How important is the mentor teacher to creating a quality student teaching experience?" In general, student teachers described the mentor teacher as "extremely important," "critical to the experience," and "making or breaking" the student teaching experience. The university

supervisor focus group yielded similar responses to the same questions. One university

supervisor responded by stating:

On a scale of 1-5, they (mentor teachers) are a 5, they are real important, maybe a 6. I

think that it is ultimate because that is the person that is going be there daily; that's

the person that is going to see everything hour to hour, minute to minute,

troubleshooting the problems, and supporting more so than anyone else.

Clinical environment. In addition to the importance of the mentor teacher, the

qualitative data also support the importance of the clinical or student teaching environment.

In general, student teachers and university supervisors described the importance of having a

student teaching environment that seems welcoming, organized, structured, and well

managed. The student teaching environment consists of the school and classroom

environments. Many participants believed that if a school as a whole was welcoming,

organized, structured, and well managed, the same could be expected in the classrooms. The

general perception among student teachers and university supervisors was that, in many

cases, the principal or administration of the school sets the tone of the entire clinical

environment.

University supervisors. The importance of the mentor teacher and student teaching

environment was reported frequently in the qualitative data. Student teachers described the

importance of the university supervisors due to their "experience in education," "knowing

what makes a good teacher," "ongoing support," and being an "open line of communication."

University supervisors described the importance of their role as being that of a mediator

between student teachers and mentor teachers, using their experience to provide student

teachers with context and rationale for successful strategies, as well as provide support and reassurance to student teachers.

Research Question 1

This section presents the quantitative and qualitative data related to Research Question 1: "What specific attributes do student teachers and university supervisors perceive as most important in a mentor teacher?" The quantitative data are presented first, followed by the qualitative themes, and finally by the merged data.

Quantitative results. Respondents were asked to rate each of the 30 survey items related to the attributes of the mentor teacher using a Likert scale ranging from 1 (*not important*) to 5 (*extremely important*) on the quantitative survey. The survey is included as Appendix B.

The survey results regarding the attributes of the mentor teacher are displayed from highest to lowest aggregate mean score. I analyzed responses from each of the two groups separately and then calculated the aggregate mean scores by combining the student teacher and university supervisor survey responses. Student teachers and university supervisors rated the importance of the mentor teachers providing constructive feedback highest, followed by three attributes which were rated as equally important to each other including the importance of allowing student teachers to try new instructional approaches, providing critical feedback, and encouraging collaboration. The greatest difference in perceptions between the student teachers and university supervisors was related to the perceived importance of mentor teachers developing a personal relationship with student teachers. See Table 8 for a complete list of survey items ranked from greatest to least important as determined by the aggregate mean followed by the standard deviation for variability among survey item responses.

Table 8

Quantitative Results for Attributes of the Mentor Teacher

How important is it for the mentor teacher to…?	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Provide constructive feedback	4.88	0.41	4.94	0.25	4.89	0.39
Allow student teachers to try new instructional approaches	4.73	0.50	4.94	0.25	4.77	0.47
Provide critical feedback	4.75	0.56	4.87	0.34	4.77	0.53
Collaborate in teaching practices	4.75	0.49	4.87	0.34	4.77	0.46
Allow student teachers to see the realities teaching profession	4.75	0.52	4.71	0.46	4.74	0.50
Accept differences between styles and opinions	4.76	0.51	4.61	0.56	4.73	0.52
Share teacher resources	4.74	0.53	4.61	0.56	4.72	0.54
Have flexibility in teaching methods	4.70	0.55	4.52	0.63	4.66	0.57
Provide positive feedback	4.65	0.62	4.72	0.52	4.66	0.60
Collaborate in lesson planning	4.60	0.66	4.74	0.51	4.63	0.64
Develop a colleague/peer relationship	4.67	0.56	4.48	0.68	4.63	0.59
Show care, compassion, encouragement and support	4.62	0.65	4.60	0.62	4.61	0.64
Model teaching best practices	4.61	0.68	4.61	0.72	4.61	0.68
Provide frequent feedback	4.57	0.71	4.72	0.52	4.60	0.68
Share handouts and class materials	4.69	0.63	4.23	0.67	4.60	0.66
Share lesson plans	4.65	0.68	4.42	0.62	4.60	0.67
Overall mentor teacher quality	4.55	0.75	4.52	0.63	4.54	0.72
Foster collaborative reflection	4.48	0.73	4.68	0.48	4.52	0.69
Include the student teacher in all professional activities	4.50	0.82	4.52	0.68	4.50	0.80
Model collaboration with colleagues	4.49	0.69	4.55	0.62	4.50	0.68
Model reflection on their practice	4.41	0.79	4.55	0.62	4.44	0.76
Turn over gradual responsibility/give up control	4.48	0.82	4.26	0.82	4.44	0.82
Foster tethered teaching	4.47	0.78	4.23	0.67	4.42	0.76
Model balancing personal needs and work stresses	4.42	0.78	4.39	0.62	4.42	0.75
Balance professional and emotional support	4.40	0.76	4.39	0.76	4.40	0.76
Team teach	4.27	0.89	4.29	0.59	4.27	0.84
Receive mentor teacher training	4.23	0.90	4.26	0.73	4.23	0.87
Offer emotional support	4.16	1.00	4.06	0.77	4.14	0.96
Develop a personal relationship	4.25	0.84	3.52	1.06	4.11	0.93
Mentor teacher teaching experience	3.64	1.14	3.27	1.05	3.57	1.13

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*).

Qualitative results. Responses to one constructed response survey question and three focus group questions regarding the attributes of a mentor teacher were coded and analyzed (Appendix B). The constructed response survey question was "What specific attributes do you consider most important in a mentor teacher?" The focus groups questions (Appendix C) were (a) "How important is the mentor teacher to creating a quality student teaching experience?" (b) "Why do you feel that way?" and (c) "What specific attributes are most important in a mentor teacher?"

The constructed response items on the survey and the focus group prompts were similar; therefore, they provided confirmatory evidence within the findings. Constructed responses were often sentence fragments or solitary words, while the focus group responses, because they were stated orally, were often lengthier and more complex. Analysis of the qualitative responses yielded the following themes:

- Quality mentor teachers welcome student teachers and validate their contributions in the classroom.

- Quality mentor teachers are responsive to student teachers and are willing to learn with them.

- Quality mentor teachers model effective teaching practices and professional responsibilities.

- Quality mentor teachers are passionate about learning and the teaching profession.

- Quality mentor teachers collaborate and plan with student teachers.

- Quality mentor teachers are instructional leaders who use their knowledge and experience to coach student teachers.

- Quality mentor teachers provide ongoing and beneficial feedback to their student teachers.

- Quality mentor teachers scaffold and support student teachers professionally and personally.

Open codes relating to the mentor teacher were sorted into eight groups based on their relationships. Table 9 represents an example of how I identified one theme based on the following process: grouping relatable open codes, collapsing codes, and finally identifying the overall theme (Krueger, 2009). Column one lists the initial open codes based on the focus group and constructed response transcripts. Column two lists the collapsed codes under the parent code. Column three is the theme that was generated based on a synthesis of the parent codes.

Codes were collapsed if they were redundant or very similar in content. For example, the code "Make student teachers feel important" was collapsed under the code "Value student teacher opinions and input." Once I was unable to further collapse the open codes within a parent code for each group, I synthesized the parent codes into a theme that incorporated their commonalities.

Table 9

Code Construction Example: Mentor Teacher

Step 1: Open Codes	Step 2: **Parent** and Collapsed Codes	Step 3: Synthesis of Codes into Theme
Respect the student teacher	**Respect the student teacher**	
Desire to foster growth in the student teacher	**Desire to foster growth in the student teacher**	Quality mentor teachers welcome student teachers and validate their contributions in the classroom.
Have a peer relationship	**Have a peer relationship**	
Have a mentor/mentee relationship	Have a mentor/mentee relationship	
Have understanding and patience	**Have understanding and patience**	
Value student teacher opinions and input	**Value student teacher opinions and input**	
Make student teachers feel important	Make student teachers feel important	
Welcome student teachers into the classroom	**Welcome student teachers into the classroom**	

Note. Parent codes are presented in bold font with collapsed codes directly underneath when appropriate.

Constructive feedback. In general, student teachers and university supervisors agreed on the importance of constructive feedback that was "specific", "ongoing", "a balance of supportive and critical", and "included suggestions for improvement". Student teachers in particular seemed to want their mentor teachers to be critical of their performance, as well as provide specific suggestions on how to improve. Some student teachers preferred feedback prior to teaching a lesson based on their lesson plans; others preferred feedback after teaching; and still others indicated that they appreciated feedback before and after the lesson

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was taught. Regardless of when they received feedback, student teachers seemed to consider constructive feedback from their mentor teachers as a critical component of their success.

Student teachers discussed suggestions for providing constructive feedback. Student teachers desired feedback after each lesson and in small doses so that they could successfully implement the suggestions. In addition, student teachers liked it when mentor teachers provided suggestions for trying new strategies. A university supervisor captured the importance of coaching skills, which includes specific feedback by saying: "The mentor teacher must possess the coaching skills including observation and feedback, to usher the student teacher through mastering the art and skill of teaching." While the university supervisor described the long term importance of feedback to support student teachers in mastering the craft of teaching, a student teacher focus group participant discussed the immediate benefits of constructive feedback: "My teachers have all given really great constructive feedback and have kind of scaffolded [*sic*] us through the process the first couple of weeks which really helped me a lot." Another student teacher focus group participant described the effects of a lack of constructive feedback:

> When I was teaching my mentor teacher sat there and listened but didn't give me any constructive feedback. She would say, "Oh that was good," and I would reply, "Okay, I don't feel like I am doing well, but thanks."

A student teacher focus group participant described how helpful it was to receive feedback when the mentor teacher was in the classroom: "Feedback is good when it is done correctly because I like feedback. How else are we going to learn? I would rather learn when I have the support of another teacher in the room than when I am by myself."

While constructive feedback was considered to be the most important attribute of the mentor teacher, student teachers and university perceived flexibility, communication, sharing control, support, encouraging new methods, as well as patience and understanding, as important attributes.

Flexibility. Flexibility was mentioned explicitly numerous times in both focus groups and survey responses. Respondents wrote that it was important for mentor teachers to be willing to be flexible and to support the student teachers when they tried new ideas. Student teachers and university supervisors also discussed the need for mentor teachers to compromise in planning and instructional methods. One student teacher referred to the importance of flexibility and compromise when stating, "It's important for your mentor teacher to let you try new things and try things that are different from his or her way."

Communication. Other respondents discussed the importance of the mentor teacher maintaining open communication and having great communication skills. One student teacher commented how "communication is essential to creating an environment that is safe for learning not only for young adolescents but for student teachers as well." Another student teacher described the importance of open communication stating that "it is important to be open to talking with the student teacher to ensure that they are both on the same page with what is expected of the student teacher as well as the classroom policies and procedures."

Sharing control. In addition to attributes related to communication skills, student teachers and university supervisors underscored the importance of the ability of the mentor teacher to share control of the classroom. Most respondents stated that "giving up control" was an important attribute of the mentor teacher. One student teacher described the importance of the mentor teacher sharing control of the classroom:

I have been fortunate to be placed in a classroom with a mentor teacher that has been

willing to hand the class over to me (in lines with the co-teaching model) and I feel

like I have had the opportunity to take over the lessons and earn the students' respect.

I have felt like a teacher and not just an intern this semester and I believe that is due

to my mentor teacher's willingness to put her students in my hands.

University supervisors also supported the importance of the mentor teacher sharing control in

the classroom. One university supervisor described how mentor teachers need "to be an

expert in their field; however, they should be willing to give the classroom over to the

candidate and allow them to learn from hands-on experiences."

Support. Another attribute that student teachers and university supervisors deemed

important was being helpful and supportive. While many student teachers and university

supervisors simply stated "helpful" as a desirable attribute, some referred to a "helpful

nature," a "willingness to help with anything," and a "willingness to assist and share

materials with the student teacher." Student teachers and university supervisors articulated

the need for mentor teachers to be supportive. One student teacher outlined the importance of

mentor teachers who "inspire, support, and encourage a student teacher," while another

stated how important it is "to feel safe and like the mentor teacher has your back if something

goes wrong." A third student teacher described support as the "willingness and ability to give

the student teacher the time they need to feel comfortable."

Encourage new methods. In addition to being helpful and supportive, student

teachers and university supervisors described the importance of mentor teachers that are

open-minded and encourage new ideas methods. Student teachers described their desires to

"try something different than what the mentor teacher was used to." University supervisors

described the reciprocal learning that can occur when mentor teachers are open to new ideas brought in by the student teachers. One university supervisor commented on the value of the being open to new ideas:

> What I hear very often is that the mentor teacher learns a great deal from the student teacher because of ideas they haven't been exposed to by being in the classroom. If they are open to the new ideas, it really makes a good cooperative situation in training the student teacher.

Patience and understanding. Student teachers and university supervisors also described the importance of patience and understanding as important attributes of mentor teachers. Many student teachers and university supervisors used these words explicitly and independently of each other, while others used them together as if they go hand in hand. One student teacher stated, "It is also important that the mentor teacher be patient and understand that the student teacher is still learning." Others simply commented about the need for the mentor teacher to be patient with student teachers and provide "understanding when student teachers are unsure of what to do in certain situations."

Modeling. Student teachers and university supervisors identified modeling effective teaching practices and classroom management techniques as another important attribute, although it was mentioned slightly less frequently. University supervisors described the need for modeling good teaching, success, and leadership with coworkers. Specifically, university supervisors discussed how a mentor teacher needs strong content and curriculum knowledge as well as strong management skills. Student teachers described the need for mentor teachers who "cannot only perform their job well, but can also explain and demonstrate the things they must do to perform their job well." Further discussion around modeling was specific to

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classroom management. One student teacher commented on the importance of seeing "effective classroom management skills already in place." While some student teachers wanted mentor teachers to model effective classroom management strategies, others wanted mentor teachers to help student teachers establish and implement their own classroom management strategies. University supervisors described the importance of mentor teachers modeling effective classroom management procedures consistently.

Merged results. The merged quantitative and qualitative data are presented in Table 10. The abbreviated qualitative themes are presented first, and the abbreviated quantitative survey items that are most closely related to each qualitative theme are presented second. In general, the qualitative themes were aligned with three to six quantitative survey items. Overall, there were seven attributes relating to the mentor teacher that were identified as important based on the merged data:

- Provides constructive feedback

- Responds to student teacher needs

- Collaborates with the student teacher

- Welcomes the student teacher and validates the student teacher's contributions

- Models effective practices

- Provides professional and personal support to the student teacher

- Shares knowledge and experience

The merged data from the student teachers and university supervisors provided evidence that the ability to provide constructive feedback was the most important attribute of a mentor teacher in a quality student teaching experience. In addition, mentor teacher responsiveness and collaboration were also important attributes. Welcoming student teachers

and validating student teachers' contributions, was closely followed by responsiveness and collaboration as the next most important attributes of a mentor teacher. Modeling effective practices and providing professional and personal support followed as important attributes of a mentor teacher. While still rated as moderately important, student teachers and university supervisors perceived the years of teaching experience as a less important attribute related to the mentor teacher.

Table 10

Merged Data Related to the Mentor Teacher

Qualitative Themes	Quantitative Survey Items How important is it for the mentor teacher to…?	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
		M	*SD*	*M*	*SD*	*M*	*SD*
Provide ongoing and beneficial feedback	Provide constructive feedback	4.88	0.41	4.61	0.56	4.89	0.39
	Provide critical feedback	4.75	0.56	4.94	0.25	4.77	0.53
	Provide positive feedback	4.65	0.62	4.61	0.72	4.66	0.60
	Provide frequent feedback	4.57	0.71	4.87	0.34	4.60	0.68
Are responsive in their thoughts and practices and are willing to learn with the student teacher	Allow student teachers to try new instructional approaches	4.73	0.50	4.23	0.67	4.77	0.47
	Accept differences between styles and opinions	4.76	0.51	4.84	0.37	4.73	0.52
	Have flexibility in teaching methods	4.70	0.55	4.68	0.48	4.66	0.57
	Turn over gradual responsibility/give up control	4.48	0.82	4.94	0.25	4.44	0.82
Collaborate and plan with student teachers	Collaborate in teaching practices	4.75	0.49	4.52	0.63	4.77	0.46
	Collaborate in lesson planning	4.6	0.66	4.06	0.77	4.63	0.64
	Team teach	4.27	0.89	4.55	0.62	4.27	0.84
Welcome student teachers and validate their contributions to the classroom	Share teacher resources	4.74	0.53	4.29	0.59	4.72	0.54
	Develop a colleague/peer relationship	4.67	0.56	4.55	0.62	4.63	0.59
	Share handouts and class materials	4.69	0.63	4.72	0.52	4.60	0.66
	Share lesson plans	4.65	0.68	4.72	0.52	4.60	0.67
	Include the student teacher in all professional activities	4.50	0.82	4.48	0.68	4.50	0.80
	Develop a personal relationship	4.25	0.84	4.52	0.68	4.11	0.93
Model effective teaching practices and professional responsibilities	Model teaching best practices	4.61	0.68	4.42	0.62	4.61	0.68
	Foster collaborative reflection	4.48	0.73	4.74	0.51	4.52	0.69
	Model collaboration with colleagues	4.49	0.69	4.26	0.82	4.50	0.68
	Model reflection on their practice	4.41	0.79	4.87	0.34	4.44	0.76
Scaffold and support student teachers personally and professionally	Show care, compassion, encouragement and support	4.62	0.65	4.26	0.73	4.61	0.64
	Demonstrate balancing personal needs and work stresses	4.42	0.78	4.71	0.46	4.42	0.75
	Balance professional and emotional support	4.40	0.76	3.27	1.05	4.40	0.76
	Offer emotional support	4.16	1.00	4.39	0.76	4.14	0.96
	Allow student teachers to see the realities of the teaching profession	4.75	0.52	4.39	0.62	4.74	0.50
Use knowledge and experience to effectively mentor student teachers	Receive mentor teacher training	4.23	0.90	4.52	0.63	4.23	0.87
	Mentor teacher teaching experience	3.64	1.14	4.60	0.62	3.57	1.13
Are passionate about learning and the teaching profession	NA	NA	NA	NA	NA	NA	NA

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*). NA indicates the absence of quantitative data to merge with the qualitative themes

Research Question 2

This section presents the quantitative and qualitative data related to Research

Question 2: "What specific attributes do student teachers and university supervisors perceive

as most important in a clinical environment?"

Quantitative results. Respondents were asked to rate each of the 16 survey items

related to the attributes of the clinical environment using a Likert scale ranging from 1 (*not*

important) to 5 (*extremely important*) on the quantitative survey. The survey is included as

Appendix B.

The survey results regarding the attributes of the clinical environment are displayed

from highest to lowest aggregate mean score. I analyzed responses from each of the two

groups separately and then calculated the aggregate mean scores by combining the student

teacher and university supervisor survey responses. Student teachers and university

supervisors rated faculty support of the development of individual teaching style as the most

important attribute in a clinical environment. Other attributes that were also rated as

important included: supporting student teachers in feeling comfortable to make mistakes,

supporting clearly articulated roles and expectations, and supporting student teachers being

recognized as teachers within the school community. Both student teachers and university

supervisors rated items focused on extending the duration of the student teaching experience

and the importance of student teaching placement demographics as less important. The

greatest difference in perceptions between the student teachers and university supervisors

was related to the perceived importance of student teachers' reflection on practice.

See Table 11 for a complete list of survey items ranked from greatest to least important as determined by the aggregate mean followed by the standard deviation for variability among survey item responses.

Qualitative results. One constructed response survey question and three focus group questions regarding the attributes of a clinical environment were coded and analyzed. The qualitative survey question was "What specific attributes do you consider most important in a clinical environment?" The focus groups questions were (a) "How important is the clinical environment to creating a quality student teaching experience?" (b) "Why do you feel that way?" and (c) "What specific attributes are most important in a clinical environment?"

The survey and focus group prompts were similar; therefore, they provided confirmatory evidence within the findings. Constructed responses were often sentence fragments or solitary words, while the focus group responses, because they were stated orally, were often lengthier and more complex. Analysis of the qualitative responses yielded the following themes:

- Quality clinical environments support the value of teaching and learning.

- Quality clinical environments are representative of diverse and authentic school experiences.

- Quality clinical environments support the alignment between the goals and intended outcomes of the teacher preparation program and the K-12 school.

- Quality clinical environments have faculty and staff that foster a supportive structure with clearly articulated processes and expectations.

- Quality clinical environments have faculty and staff that foster equal treatment between teachers in the school and student teachers from the university.

- Quality clinical environments have faculty and staff who embrace and support student teachers.

Open codes related to the clinical environment were then sorted into six groups based on their relationships to one another. Table 12 represents an example of how I identified one theme based on the following process: grouping relatable open codes, collapsing codes, and finally identifying the overall theme (Krueger, 2009). Column one lists the initial open codes based on the focus group and constructed response transcripts. Column two lists the collapsed codes under the parent code. Column three is the theme that was generated based on a synthesis of the parent codes.

Codes were collapsed if they were redundant or very similar in content. For example, the codes "environment that promotes the student to take risks," "trust," and "freedom" were collapsed under the code "supportive environment for the student teacher." Once I was unable to further collapse the open codes within a parent code for each group, I synthesized the parent codes into a theme that incorporated their commonalities.

Welcoming classroom and school environment. In general, student teachers and university supervisors agreed on the importance of an environment that was inviting and accepting as well as a faculty that was unified in the responsibility of nurturing student teachers. Student teachers and university supervisors specifically addressed the need to be welcomed by the mentor teacher, principal, and faculty as a whole. Student teachers and university supervisors felt that the principal was somewhat responsible for establishing the welcoming classroom and school environment.

Student teachers and university supervisors agreed that a welcoming atmosphere was a necessity for a quality student teaching experience. A university supervisor underscored

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the importance of a having a willing and welcoming faculty in helping student teachers feel connected from the very beginning of the experience: "The faculty should be receptive to having student teachers, want them there, and make them feel welcome and a part of the faculty when they come in."

A second university supervisor discussed the importance of having a clinical environment that fosters learning and growth of the student teachers: "It's that whole atmosphere of the school itself and their openness to have others come in to learn and grow." One student teacher respondent described the importance of feeling welcomed and validated by the entire faculty in addition to the mentor teacher: "I would say the most important thing is to be in a school that welcomes student teachers. I have felt welcomed at the school by the staff both inside and outside of the classroom."

In addition to the welcoming school environment, a student teacher commented on how the mentor teacher has an effect on how welcome a student teacher feels in a classroom environment by stating that "I have been in a classroom where it is very welcoming and then I have been in a classroom where it is very unwelcoming, it was probably the teacher, but I felt very different in those two situations." Student teachers and university supervisors supported the importance of selecting placements where teachers and administrators welcomed student teachers and where student teachers were embraced by other people than just their mentor teachers.

Table 11

Quantitative Results for Attributes of the Clinical Environment

How important is it to…?	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Develop individual teaching style	4.78	0.43	4.35	0.49	4.70	0.47
Feel comfortable to make mistakes	4.73	0.54	4.55	0.57	4.69	0.55
Establish clearly defined roles and expectations	4.67	0.59	4.67	0.55	4.67	0.58
Recognize the student teacher as a teacher	4.70	0.60	4.45	0.57	4.67	0.59
Establish clear goals and outcomes	4.65	0.64	4.58	0.56	4.64	0.63
Draw connections between university coursework to field experiences	4.56	0.72	4.65	0.49	4.58	0.68
Be empowered to take risks	4.60	0.69	4.39	0.62	4.56	0.68
Feel included by the principal and other staff	4.52	0.72	4.16	0.78	4.45	0.74
Establish support of mentor teachers by university supervisors	4.39	0.89	4.45	0.62	4.40	0.84
Overall school climate	4.32	0.80	3.90	0.89	4.24	0.83
Require self-reflection on practice	4.09	0.92	4.71	0.53	4.21	0.89
Require self-reflection on personal growth	4.10	0.99	4.47	0.67	4.18	0.95
Reflect cultural and learner diversities	4.18	0.92	3.90	0.91	4.13	0.92
Maintain one semester duration	4.14	1.06	4.03	0.96	4.12	1.04
Consider placement demographics	3.45	1.22	3.17	1.05	3.40	1.19
Extend to year-long duration	2.73	1.53	2.97	1.45	2.78	1.52

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*).

Table 12

Code Construction Example: Clinical Environment

Step 1: Open Codes	Step 2: **Parent** and Collapsed Codes	Step 3: Synthesis of Codes into Theme
Welcoming classroom and school environment	**Welcoming classroom and school environment**	
Strong student teacher/mentor teacher relationship	**Strong student teacher/mentor teacher relationship**	
Principal's influence of student teachers' acceptance	**Principal's influence of student teachers' acceptance**	Quality clinical environments have faculty and staff who embrace and support student teachers.
Willingness to undertake student teachers	**Willingness to undertake student teachers**	
Supportive environment for the student teacher	**Supportive environment for the student teacher**	
Environment that promotes the student teacher to take risks	Environment that promotes the student teacher to take risks	
Trust	Trust	
Freedom	Freedom	
Positive environment	**Positive environment**	
Friendly	Friendly	

Note. Parent codes are presented in bold font with collapsed codes directly underneath when appropriate.

Diversity. Student teachers and university supervisors also discussed the importance

diversity in a quality clinical environment. One student teacher discussed her experience in a

student teaching placement that was very different from the environment of her own public

schooling:

I think being aware of the socioeconomic and cultural diversity is important. I'm from a mostly white county, and I came to this small mostly black school. I knew the world wasn't white, but teaching kids that were different from what I grew up with and seeing the qualities in them, made me absolutely adore them. I think it is also important to see socioeconomic diversity. The school where I am placed is one of the lower income schools; it's like a completely different world than the other schools in the county.

A second student teacher focused on English language learners and exceptional children in her student teaching experience:

I would say that my student teaching experience has been a huge learning experience. The school where I am placed is one of the lower income schools in the county. In our class and we have four EC students and half of our class are English language learners. It has been interesting and challenging to try meet state standards for second graders who are on level or above level and to also keep those others caught up.

A third student teacher commented on her experiences with poverty in her placement stating that, "I think where I've been placed has given me a good learning experience because of the poverty in the area. It has shown me the impact of socioeconomics in education." Some student teachers discussed the importance of being placed in a diverse school with diversity of student levels and behaviors, student populations, and cultures so that student teachers can incorporate appropriate cultures into the curriculum. Other student teachers articulated the need to "be placed somewhere different from how you grew up," "have a diverse classroom, not only by race, but economically and learning ability," and "have a classroom that has great diversity in culture and learning abilities."

Principal's influence. Student teachers and university supervisors also agreed on the importance of the principal's influence in promoting a quality clinical environment. One university supervisor stated, "The principal's willingness to help student teachers in the school is important. Some are not as receptive as others and that carries over to the mentor teachers and the other teachers in the building." While many student teachers described the significance of having an effective principal to ensure a healthy school climate and culture, others described the value of acknowledgement by the principal, and the need for helpful, supportive, and involved administrators. One student teacher commented on the necessity of having "an involved principal to make you feel you are a part of the faculty." Student teachers also described the impact of having a principal who was present and active in the classroom. Further, student teachers articulated the significance of the administrators supporting the student teacher as they do the other staff. University supervisors supported the necessity of a receptive attitude by administrators including having a welcoming and supportive administration and staff.

Respect. While student teachers and university supervisors outlined the importance of the support and influence of the principal in a quality student teaching experience, they also agreed upon the importance of the faculty promoting respect l within the classroom and throughout the school. Many student teachers simply stated respect as an important attribute of a quality clinical environment. Student teachers discussed the importance of respect as future professionals, respect in the classroom, respect as an authority figure, and respect from faculty as important attributes in a quality clinical environment. University supervisors agreed that respect was important for quality student teaching environments. University supervisors reported the importance of "mutual respect," "a climate of respect for everyone

who enters the doors," and a "positive, welcoming, and respectful atmosphere for all students and guests." University supervisor respondents also outlined the importance of "a professional environment where parents, students, and teachers are treated with respect" and "respect for the student teacher."

School-wide collaboration. Student teachers discussed the value of school-wide collaboration in quality clinical environments. A student teacher commented on the importance of collaboration within the school:

> It's really been a good experience to see PLCs, team planning and advisory and to go in there and actually experience it. That's been one of the best things I've done. I've been able to attend all of the separate meetings that make middle school what it is.

A second student teacher supported the value of school-wide collaboration:

> In middle grades, it's all about PLC's [*sic*]. In my internship last semester, it was like all one big grade and there wasn't any collaboration between the math teachers. But this student teaching experience, I've been able to see my math teacher along with the other math teachers on our hall collaborating every week. I think that is so awesome to see that.

A university supervisor commented on the importance of student teachers seeing school-wide collaboration in their placements:

> An ideal clinical environment for me is one that is modern, up-to-date, dynamic. Teachers are doing collaborative projects or are at least participate in grade level or department collaborative meetings. Student teachers need to be in collaborative environments where they are seeing what they have been taught, in action.

Others defined collaboration as team planning, collaboration among departments, and collaboration among the entire staff. One university supervisor described the importance of professional collaboration as "a school where the staff is working as a true team, demonstrating how professionals can work together for the good of all students and family involvement."

Collegiality. While student teachers and university supervisors outlined the importance of collaboration, they also agreed on the importance of student teachers being treated as equals to classroom teachers in the school. A student teacher expressed her appreciation for the collegial but professional manner in which she was treated by her mentor teacher:

> When the students were in the classroom, my mentor teacher treats me like a colleague. She treats me and calls me what the students call me and treats me very professionally. Specifically treating me as a professional in the way she introduced me, but also the way she interacted with me. She treated me like I am another teacher, and the students have handled that very well.

Other student teachers also echoed the importance of being treated and valued like an equal professional.

A university supervisor focus group participant supported the equal treatment of student teachers by describing the importance of the mentor teacher and faculty to "perceive student teachers as both peer and student 99% peer and 1% student." Another university supervisor respondent wrote that the mentor teacher should:

Treat the student teacher as a peer while at the same time understanding that they are still learning. The student teacher needs to feel that they are a part of something to which they are contributing as well as receiving.

Clear expectations. In addition to the importance of equal treatment of student teachers and faculty members at the school, student teachers and university supervisors agreed upon the importance of clear expectations in a quality student teaching experience. Many student teachers described the importance of working in an environment with set rules, guidelines, and goals, and where student teachers are provided clear information about the rules and procedures in the classroom. Student teachers also identified the importance of having a clear understanding of obligations from both the school and the university. Specifically, student teachers wanted clear, consistent, and explicit expectations from the various figures that have authority over their experiences as student teachers. One student teacher stated that it is important for mentor teachers to be "helpful in taking the time to go over school rules, expectations, behavioral plans, and important schedules." A university supervisor mirrored this statement saying, "A student teacher needs to be in an environment where he or she knows what to expect; schedules should be well established." Another university supervisor recommended placing student teachers with a mentor teacher who is "a person with an organized personality, who will give student teachers clear responsibilities and assignments within the classroom, which seems to make student teachers feel more secure and confident during the student teaching experience."

Structure. Student teachers and university supervisors identified the need to be in a structured clinical environment as another important attribute, although this attribute was

mentioned slightly less frequently. A university supervisor discussed the importance of structure and how it connects with supportive student teaching experiences stating:

> I think it is important to have a school that is well organized and has structures in place so that teachers feel supported within the school. If the teachers feel supported, they in turn can be supportive of the student teacher. I have been in schools where I thought the whole school lacked enough discipline that everyone was having a hard time in that building.

A student teacher described how she appreciated the structure within the school:

> We have faculty meetings every other week. We have committee meetings and team meetings every week. We have data meetings and grade level meetings every week. I think it is pretty impressive the system the principal has in place, and it really keeps the teachers up to that standard that they need to be.

While some student teachers were less specific, others clearly articulated a need for a well-structured and organized environment. Student teachers also discussed the importance of effective classroom routines and an organized schedule.

Merged results. The merged quantitative and qualitative data are presented in Table 13. The abbreviated qualitative themes are presented first, and the abbreviated quantitative survey items that are most closely related to each qualitative theme are presented second. In general, the qualitative themes were supported by two to four closely related quantitative survey items. Overall, there were six attributes relating to the clinical environment and identified as important based on the merged data and include fostering:

- Welcoming and supportive faculty and staff
- Clearly defined roles and expectations

- Equal treatment between student teachers and classroom teachers

- Alignment between the teacher preparation program and the school

- Supports the value of teaching and learning

- Reflects authentic placement demographics

The merged data from the student teachers and university supervisors identified that a welcoming and supportive faculty and staff was the most important attribute of a clinical environment in a quality student teaching experience. In addition, clearly defined roles and equal treatment between student teachers and classroom teachers were also important attributes. Supporting the alignment between the teacher preparation programs and the placement schools was also an important attribute of a clinical environment. Establishing the support of the value of teaching and learning was the next most important attribute of a clinical environment. While still rated moderately important, student teachers and university supervisors perceived the role of authentic placement demographics to be a less important attribute related to the clinical environment.

Table 13

Merged Data Related to the Clinical Environment

Qualitative Themes	Quantitative Survey Items How important is it to…?	Student Teacher (n = 132)		University Supervisor (n = 32)		Aggregate (n = 164)	
		M	*SD*	*M*	*SD*	*M*	*SD*
Have faculty and staff who embrace and support student teachers	Encourage development of individual teaching style	4.78	0.43	4.35	0.49	4.70	0.47
	Ensure student teachers feel comfortable to make mistakes	4.73	0.54	4.55	0.57	4.69	0.55
	Empower student teachers to take risks	4.60	0.69	4.39	0.62	4.56	0.68
Foster clearly articulated processes and expectations	Establish clearly defined roles and expectations	4.67	0.59	4.67	0.55	4.67	0.58
	Establish clear goals and outcomes	4.65	0.64	4.58	0.56	4.64	0.63
Foster equal treatment between teachers and student teachers	Recognize the student teacher as a classroom teacher	4.70	0.60	4.45	0.57	4.67	0.59
	Feel included by the principal and other staff	4.52	0.72	4.16	0.78	4.45	0.74
Support the alignment between the teacher preparation program and the school	Draw connections between university coursework to field experiences	4.56	0.72	4.65	0.49	4.58	0.68
	Establish support of mentor teachers by university supervisors	4.39	0.89	4.45	0.62	4.40	0.84
Support the value of teaching and learning	Overall school climate	4.32	0.80	3.90	0.89	4.24	0.83
	Require self-reflection on practice	4.09	0.92	4.71	0.53	4.21	0.89
	Require self-reflection on personal growth	4.10	0.99	4.47	0.67	4.18	0.95
Representative of diverse and authentic school experiences	Reflect cultural and learner diversities	4.18	0.92	3.90	0.91	4.13	0.92
	Consider placement demographics	3.45	1.22	3.17	1.05	3.40	1.19

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*).

Research Question 3

This section presents the quantitative and qualitative data related to Research Question 3: "What specific attributes do student teachers and university supervisors perceive as most important in a university supervisor?"

Quantitative results. Respondents were asked to rate each of the two survey items related to the attributes of the university supervisor using a Likert scale from 1 (*not important*) to 5 (*extremely important*). The survey is included as Appendix B.

The survey results regarding the attributes of the university supervisor are displayed from highest to lowest aggregate mean score. I analyzed responses from each of the two groups separately and then calculated the aggregate mean scores by combining the student teacher and university supervisor survey responses. Student teachers and university supervisors rated the importance of the university supervisor providing constructive feedback highest, while they rated university supervisor involvement and oversight lowest. See Table 14 for the survey items ranked from greatest to least important as determined by the aggregate mean followed by the standard deviation for variability among survey item responses.

Table 14

Quantitative Results for Attributes of the University Supervisor

How important is…?	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Constructive feedback from the university supervisor	4.52	0.75	4.69	0.47	4.55	0.71
Involvement and oversight from the university supervisor	4.08	1.05	4.33	0.71	4.12	1.00

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*).

Qualitative results. One constructed response survey question and three focus group questions regarding the attributes of a university supervisor were coded and analyzed. The qualitative survey question was "What specific attributes do you consider most important in a

university supervisor?" The focus groups questions were: (a) "How important is the university supervisor to creating a quality student teaching experience?" (b) "Why do you feel that way?" and (c) "What specific attributes are most important in a university supervisor?"

The constructed response items on the survey and the focus group prompts were similar; therefore, they provided confirmatory evidence within the findings. Constructed responses were often sentence fragments or solitary words, while the focus group responses, because they were stated orally, were often lengthier and more complex. Analysis of the qualitative responses yielded the following themes:

- Quality university supervisors are consistently available, approachable, and involved with the student teacher throughout the student teaching experience.

- Quality university supervisors are responsive to each student teacher's learning situation.

- Quality university supervisors establish and maintain relationships and connections to all stakeholders throughout the student teaching experience.

- Quality university supervisors utilize their knowledge and experiences in order to ensure that the student teaching experience meets the expectations of the university.

- Quality university supervisors are professionally and personally supportive of student teachers.

- Quality university supervisors provide ongoing and beneficial feedback.

- Quality university supervisors demonstrate professionalism in their interactions with student teachers.

Open codes relating to the university supervisor were then sorted into six groups based on their relationships to one another. Table 15 represents an example of how I identified one theme based on the following process: grouping relatable open codes, collapsing codes, and finally identifying the overall theme (Krueger, 2009). Column one lists the initial open codes based on the focus group and constructed response transcripts. Column two lists the collapsed codes under the parent code. Column three is the theme that was generated based on a synthesis of the parent codes.

Table 15

Code Construction Example: University Supervisor

Step 1: Open Codes	Step 2: **Parent** and Collapsed Codes	Step 3: Synthesis of Codes Theme
Be a good listener	**Be a good listener**	
Encouragement	**Encouragement**	
Guidance	**Guidance**	
Give advice	Give advice	Quality university supervisors provide ongoing and beneficial feedback.
Coach out of teaching	Coach out of teaching	
Communication	**Communication**	
Lack of communication	Lack of communication	
Feedback	**Feedback**	
Lack of feedback	Lack of feedback	

Note. Parent codes are presented in bold font with collapsed codes directly underneath when appropriate.

Codes were collapsed if they were redundant or very similar in content. For example, the codes "give advice" and "coach out of teaching" were collapsed under "guidance." Once

I was unable to further collapse the open codes within a parent code for each group, I synthesized the parent codes into a theme that incorporated their commonalities.

      Constructive feedback. Student teachers explained that constructive feedback should be readily available, constructive and consistent, include positive and negative comments with examples of how to improve, and effectively convey praise and criticism. University supervisors supported the need for feedback recommending constructive feedback be specific, prompt, and provide both positive feedback and suggestions for improvement. University supervisors also described the need for realistic suggestions to improve instruction and abundant but non-threatening constructive feedback. Some student teachers felt their university supervisors were exceptional in coaching, providing feedback, availability, and involvement throughout the student teaching experience. One student teacher articulated her satisfaction with her university supervisor's feedback when stating:

> My university supervisor is really experienced, so she knows what principals are looking for, and what makes a good teacher. She is really great about providing me feedback. After she observes me, we sit down and have a 30 minute conversation about my evaluation, what I did well, and what I need to work on.

A second student teacher echoed the value of her university supervisor's involvement and open line communication by explaining:

> My university supervisor has really tried to make herself part of the classroom and tried to establish a relationship with my cooperating teacher where if anything really were to go wrong, they could go to each other, it is a very open line of communication, and a lot of trust within our little triangle.

While most student teachers expressed positive experiences with their university supervisors' feedback and communication, some student teachers articulated a concern that their university supervisors did not provide adequate feedback or do so in a timely manner. One student teacher focus group participant described her frustration concerning the lack of feedback with her university supervisor when she stated:

I thought we were submitting the same assignment and doing revisions after we get feedback, but she hasn't given me feedback in time for me to update my stuff. I'm guessing what I'm supposed to be doing, so I definitely feel like there is lack of communication.

Another student teacher from the same focus group agreed that he had also felt frustration due to the lack of constructive feedback from his university supervisor:

I don't get any comments on anything. I get a satisfactory, but is that good enough? Is this what I need to be doing? I'm looking at this as this is my trial run for next year. These lessons plans that I'm submitting and these things that I'm doing, I need to know, is that what I need to be doing?

While there appeared to be opposing experiences with university supervisor feedback, student teachers and university supervisors agreed that constructive feedback was important to a quality student teaching experience.

Open communication. In addition to constructive feedback, student teachers and university supervisors perceived: communication, availability, flexibility, timeliness, and helpfulness as important attributes of the university supervisor. Student teachers and university supervisors agreed that communication was an important attribute of university

supervisors, and it was often mentioned explicitly. A student teacher described her

experience with her university supervisor regarding open communication:

My university supervisor has been extremely open with communicating with her.

She tells us to come to her with any questions. I like the communication and support.

She tells us, "I am here for you, don't ever feel alone, send me questions."

Student teachers and university supervisors articulated a need for the university supervisor to

be a good communicator, maintain consistent and frequent contact, and have open lines of

communication with both student teachers and mentor teachers.

Availability. In addition to communication, student teachers and university

supervisors perceived university supervisor availability as an important attribute of university

supervisors in a quality student teaching experience. Student teachers and university

supervisors defined availability as accessible to answers questions and for the student teacher

and mentor teacher if they have concerns. One student teacher commented on the need for

university supervisors to be "available to the student teachers, answer questions, offer

feedback, and guide them through the experience." Some university supervisors related

availability to accessibility, arguing that the university supervisor must be accessible to the

student teacher at all times and be available by text or phone call.

Flexibility. Student teachers and university supervisors also discussed the importance

of flexibility as an attribute of university supervisors in a quality student teaching experience.

A student teacher commented on how she appreciated the flexibility of her university

supervisor, specifically related to daily schedules:

My university supervisor spent a lot of time in elementary schools and he knows that

schedules change and there are a lot of demands at the elementary level that get in the

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way of the schedule. It's really nice for my university supervisor to be understanding that things come up and plans change. That's really helpful to me.

Other student teachers explained the need for university supervisor flexibility in other areas. For example, they believed that university supervisors should be flexible with due dates, understanding of circumstances, and responsive to student teachers' needs. A university supervisor reported on the importance of flexibility and discussed the importance of providing student teachers a quality experience: "Too often situations arise where there is not set rule or guideline. Supervisors need to work with candidates to provide them the best experience possible. It is not our job to make the process more difficult." Other university supervisors commented on the importance of the university supervisor having "flexibility to find ways to make the classroom environment work for the growth of the student teachers" and know that "not every placement will run by the book so they need to be willing to adapt."

Timeliness. Timeliness is another important attribute of the university supervisor that student teachers and university supervisors agreed was related to a quality student teaching experience. Student teachers explained the need for prompt responses from university supervisors when "answering questions (emails, texts) and keep up with grading assignments so we know if we need to change the way we are doing specific assignments like lesson plans." Further, student teachers recommended the need for timely encouragement and reminders; reasonable response time when responding to emails, concerns, or questions; and promptness in grading assignments. University supervisors supported timeliness as an important attribute of university supervisors. University supervisors highlighted the need to "be prompt in addressing student teacher or mentor teacher concerns and in grading

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assignments and providing specific feedback," "read email daily and answer questions promptly," and "be on time for observations and to be timely with reports."

Helpfulness. Student teachers and university supervisors also discussed the importance of helpfulness as an important attribute of a university supervisor in a quality student teaching experience. Many student teachers defined helpful as "willingness to help." While many student teachers referenced being helpful, very few provided specific examples. Of the few specific responses, one student teacher referred to helpfulness as the need to "be supportive and ready to offer their opinions, ideas, and constructive criticism to student teachers." Another student teacher referred to being helpful as the "ability to problem solve and offer guidance." A university supervisor described helpfulness as being "capable of guiding the student teacher regarding methods and content, but also helping them navigate the difficult situations that seem to arise during student teaching."

Support. Both student teachers and university supervisors articulated a need for university supervisors to be supportive of student teachers, although it was mentioned slightly less frequently. A student teacher commented on the importance of university supervisor support and guidance by stating that "I feel that I have had the complete freedom to spread my wings and fly and that has made it a real quality experience because I had the support and guidance from my university supervisor."

A university supervisor described the importance and delicate nature of providing support to student teachers when she explained:

> Sometimes student teachers will get a mentor teacher who is not the most nurturing or ideal and many times we are too far into the semester to realize that it. When this happens, you have to give lots of extra support and encouragement to the student

teacher [*sic*] to try to get them through reminding them that they are going to be

stronger as the result of the experience and have learned what not to do. In the last

five weeks, give them an opportunity to observe, volunteer, and assist, in another

situation so that they can learn some positive things to take with them when they are

ready to go.

Others simply stated the need for university supervisors to be supportive of student teachers.

One student teacher expressed gratitude for the support she received from her university

supervisor when she said, "I have been fortunate enough to have a supervisor who has been

supportive and has worked well with me throughout adversity and all the work that is needed

for this experience."

Familiarity with university expectations. Student teachers and university supervisors

also agreed that an important attribute for university supervisors is familiarity with the

university's expectations of the student teacher. Student teachers described this familiarity in

a university supervisor as "someone who knows exactly what the student teacher should be

doing with their [*sic*] assignments," "gives good explanation of assignments," and is

"familiar with the assignments and goals student teachers are working on." One university

supervisor commented on the need for university supervisors to be supportive of student

teachers and mentor teachers: "You have to be willing to guide the student teacher and

provide the mentor teacher with appropriate support throughout the semester."

Merged results. The merged quantitative and qualitative data are presented in Table

16. The abbreviated qualitative themes are presented first and the abbreviated quantitative

survey items that are most closely related to each qualitative theme are presented second.

Overall, there were two attributes related to the university supervisor that were identified as important based on the merged data including the following:

- Provides constructive feedback

- Demonstrates active involvement and oversight

The merged data from the student teachers and university supervisors provided evidence that providing constructive feedback was the most important attribute of a university supervisor in a quality student teaching experience (Table 16). While still rated as moderately important, student teachers and university supervisors perceived the importance of university supervisor involvement and oversight to be a less important.

Based on the merged data, only two of the seven qualitative themes related to the university supervisor are closely related to quantitative survey data.

Table 16

Merged Data Related to the University Supervisor

Qualitative Themes	Quantitative Survey Items	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
	How important is…?	*M*	*SD*	*M*	*SD*	*M*	*SD*
Provide ongoing and beneficial feedback	Constructive feedback	4.52	0.75	4.69	0.47	4.55	0.71
Consistently available, approachable, and involved	Involvement and oversight	4.08	1.05	4.33	0.71	4.12	1.00
Responsive to each student teacher's learning situation	NA	NA	NA	NA	NA	NA	NA
Establish and maintain relationships and connections to all stakeholders	NA	NA	NA	NA	NA	NA	NA
Utilize knowledge and experiences to ensure university expectations are met	NA	NA	NA	NA	NA	NA	NA
Professionally and emotionally supportive	NA	NA	NA	NA	NA	NA	NA
Demonstrate professionalism	NA	NA	NA	NA	NA	NA	NA

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*). NA indicates the absence of quantitative data to merge with the qualitative themes.

Research Question 4

This section presents the quantitative and qualitative data related to Research Question 4: "What specific attributes do student teachers and university supervisors perceive as most important in a student teacher?"

Quantitative results. Respondents were asked to rate each of the five survey items related to the attributes of the student teacher using a Likert scale ranging from 1 (*not important*) to 5 (*extremely important*). The survey is included as Appendix B.

The survey results regarding the attributes of the student teacher are displayed from highest to lowest aggregate mean score. I analyzed responses from each of the two groups separately and then calculated the aggregate mean scores by combining the student teacher and university supervisor survey responses. Student teachers and university supervisors rated the importance of work ethic highest, followed by the importance of motivation and initiative. Student teachers and university supervisors rated items about content knowledge and pedagogical knowledge lowest. The greatest difference in perceptions between the student teachers and university supervisors was the importance of the student teachers' desire to be viewed as teachers. See Table 17 for a complete list of survey items ranked from greatest to least important as determined by the aggregate mean followed by the standard deviation for variability among survey item responses.

Table 17

Quantitative Results for Attributes of the Student Teacher

How important are these dispositions in student teachers?	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Work ethic	4.87	0.42	5.00	0.00	4.89	0.38
Motivation and initiative	4.83	0.41	4.90	0.30	4.85	0.39
Desire to be viewed as a teacher	4.71	0.53	4.53	0.57	4.68	0.54
Content knowledge	4.63	0.60	4.52	0.68	4.60	0.61
Pedagogical knowledge	4.62	0.62	4.52	0.57	4.60	0.61

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*).

Qualitative results. One constructed response survey question and three focus group questions regarding the attributes of a student teacher were coded and analyzed. The qualitative survey question was "What specific attributes do you consider most important in a

student teacher?" The focus groups questions were: (a) "How important are overall student teacher dispositions to a quality student teaching experience?" (b) "Why do you feel that way?" and (c) "What specific attributes are desirable in a student teacher?"

The constructed response items on the survey and the focus group prompts were similar; therefore, they provided confirmatory evidence within the findings. Constructed responses were often sentence fragments or solitary words, while the focus group responses, because they were stated orally, were often lengthier and more complex. Analysis of the qualitative responses yielded the following themes:

- Quality student teachers are flexible and willing to learn.
- Quality student teachers are actively involved in their school and classroom environments.
- Quality student teachers demonstrate proficiency in content, pedagogy, and classroom management.
- Quality student teachers are passionate about teaching.
- Quality student teachers exemplify professionalism.
- Quality student teachers demonstrate a strong work ethic.
- Quality student teachers maintain a positive outlook.

Open codes relating to the student teacher were then sorted into seven groups based on their relationships to one another. Table 18 represents an example of how I identified one theme based on the following process: grouping relatable open codes, collapsing codes, and finally identifying the overall theme (Krueger, 2009). Column one lists the initial open codes based on the focus group and constructed response transcripts. Column two lists the

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collapsed codes under the parent code. Column three is the theme that was generated based

on a synthesis of the parent codes.

Table 18

Code Construction Example: Student Teacher

Step 1: Open Codes	Step 2: **Parent** and Collapsed Codes	Step 3: Synthesis of Codes into Theme
Flexibility	**Flexibility**	
Willingness to learn	**Willingness to learn**	
Open to new ideas	**Open to new ideas**	
Willing to try new things	Willing to try new things	
Willing to accept criticism	**Willing to accept criticism**	
Coachability	Coachability	
View observation as a tool	View observation as a tool	Quality student teachers are flexible and willing to learn.
Willing to Make Mistakes	**Willing to make mistakes**	
Willing to take risks	Willing to take risks	
Confidence	Confidence	
Courage	Courage	
Reflective	Reflective	
Understand placement context	**Understand placement context**	
Open to diversity	Open to diversity	
Tolerance	Tolerance	

Note. Parent codes are presented in bold font with collapsed codes directly underneath when appropriate.

Codes were collapsed if they were redundant or very similar in content. For example,

the codes "willing to take risks," "confidence," "courage," and "reflective" were collapsed

under the code "willing to make mistakes." Once I was unable to further collapse the open

codes within a parent code for each group, I synthesized the parent codes into a theme that

incorporated these commonalities.

Willingness to learn. In general, student teachers and university supervisors agreed

that student teachers must be willing to learn. The exact phrases "willing to learn" or

"willingness to learn" were explicitly and frequently stated. Student teachers and university

supervisors also used similar language when they referred to the importance of being "open

to learn", "eager to learn," "willing to learn and fail," "willing to learn and adapt," and

"willing to take the feedback provided and apply it toward making himself or herself a better

teacher." A student teacher focus group participant discussed the importance of being willing

to learn from the mentor teacher, university supervisor, and the experience itself:

> A willingness to learn is very important. Learn from your mentor teacher and from
>
> your university supervisor's feedback after your observations. Learn from just being
>
> in the classroom and not going in like you think you know how to do things and that
>
> that is the only way things can be done. Don't be stuck in that mindset. Just be willing
>
> to learn and be flexible.

Beyond a willingness to learn, student teachers and university supervisors perceived:

flexibility, work ethic, willingness to accept criticism, organization, dedication, initiative, and

willingness to try new things, as important attributes in a student teacher.

Flexibility. Student teachers and university supervisors described the importance of

student teacher flexibility numerous times. A student teacher focus group participant

mentioned the importance of flexibility while still accomplishing goals:

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I think being flexible is huge because you can't script out your day. You don't know

how it's going to go with your kids, and you don't know what is going to come up.

Just being flexible and able to adapt and still get things accomplished, that's huge.

A university supervisor also discussed the importance of flexibility in an educator and the

consequences of having a lack thereof:

A student teacher who isn't willing to be flexible, change, or look at something in a

different way, is probably not going to survive very long. Being flexible is something

that I don't know how you don't include that in any descriptor of a successful

educator.

Work ethic. Student teachers and university supervisors also noted the importance of

a strong work ethic as an attribute related to the student teacher in a quality student teaching

experience. A student teacher articulated the importance of work ethic when she described

leaving at the end of the day: "I honestly did everything I could to help and to be a part of

this teacher's classroom and these kids' lives and give them all the support that I could."

Other student teachers described the importance of hard work and being helpful to the mentor

teacher. Student teachers also stated the importance of getting work done in a timely manner

and a willingness to do what it takes to help students reach their goals. University supervisors

also reported the importance of a strong work ethic among student teachers. University

supervisors specifically addressed the need for student teachers to go above and beyond what

was expected of them by the mentor teacher while still meeting the university's requirements.

Ability to accept criticism. In addition to a strong work ethic, student teachers and

university supervisors agreed about the importance of student teachers' willingness to accept

criticism as an important attribute of student teachers. A university supervisor focus group participant discussed the importance of student teachers accepting criticism as it is intended:

One thing that I think students must do in order to have successful experiences is to be willing to take the suggestions and constructive criticism without taking it personally and understand that we truly are trying to make them stronger teachers. We all try to do that in a positive manner, but the way we give criticism is not always the way it is perceived. The student teachers automatically think that it is a criticism, that they have done something wrong, and they are terrible. If they can learn that all the things we are trying to do are for their own benefit, and that we are truly trying to help.

Student teachers also discussed the importance of not perceiving negative feedback or criticism personally, and knowing that feedback will only make them stronger educators for their future students. A student teacher described the importance of learning from constructive criticism rather than taking offense: "It is important for us to realize that we don't know everything yet.…We must be open to suggestions and constructive criticism." Further, university supervisors agreed that for student teachers to be successful, they must be willing to accept suggestions for improvement and be receptive to constructive feedback.

Organization. Student teachers and university supervisors agreed upon the importance of organization as an attribute of student teachers in a quality student teaching experience. Specifically, student teachers and university supervisors described the need to be organized with all the assignments and lessons. Nearly half of the constructed response survey respondents mentioned being "organized" or "organization" as important attributes of student teachers in a quality student teaching experience.

Dedication.   In addition to organization, student teachers and university supervisors described the importance of student teachers being dedicated to the student teaching experience. One student teacher wrote:

> The most important attribute in a student teacher is dedication. The mentor teacher needs to know he or she can depend on his or her student teacher and not worry about giving too much control over in the classroom. A student teacher who shows up prepared and ready to go on a daily basis and keeps the mentor teacher informed about all lesson plans and schedules is vital in the student teaching process.

Other student teachers supported the importance of being devoted, dependable, and committed. One student teacher specified the dedication to "the academic success of all students." University supervisors specifically articulated the importance of being dedicated to the demands of the semester and the commitment to doing well as evidenced in their attitude and in fulfillment of assignments.

Initiative.   While dedication was determined important by student teachers and university supervisors, the importance of initiative was also explained. One university supervisor focus group participant articulated the importance of student teachers taking initiative in order to become involved and present in the school:

> The student teacher needs to go into the office and talk to the principal, the secretary, the other staff that is in the school, the parents. Take the initiative to develop those relationships with the community, families, and students, by sending a newsletter home. Be part of the school's website, be proactive in selling themselves, that "I am a professional, and I am here to help, and be a part of the school" to fit in and be a part of the culture of the school.

Willing to try new things. Student teachers and university supervisors also agreed that being open and willing to try new things is an important attribute of student teachers in a quality student teaching experience. A student teacher described the importance of trying new things while under the guidance and support of the mentor teacher:

> Be willing to try new things, because next year, you're going to have to do it no matter what. You need to use this time as a safety net. This is the time you do the lessons that you don't know will work because it's not dependent on you alone. You have the flexibility to try it and to fail if you have to.

Another student teacher referred to the importance of "being open to new experiences while being comfortable with failure and change." Student teachers and university supervisors also agreed on the importance of learning from mistakes, being willing to leave their comfort zone, and considering other perspectives.

Merged results. The merged quantitative and qualitative data are presented in Table 19. The abbreviated qualitative themes are presented first, and the abbreviated quantitative survey items that are most closely related to each qualitative theme are presented second. In general, the qualitative themes were aligned with one to two quantitative survey items. Overall, there were four attributes related to the student teacher that were identified as important based on the merged data and included:

- Demonstrates a strong work ethic
- Demonstrates motivation and initiative
- Demonstrates professionalism
- Demonstrates content and pedagogical knowledge

The merged data from the student teachers and university supervisors identified that demonstrating a strong work ethic was the most important attribute of a student teacher in a quality student teaching experience. In addition, demonstrating motivation and initiative were also important attributes. Demonstrating professionalism was the next most important attribute of a student teacher. While still rated as moderately important, student teachers and university supervisors perceived demonstrating content and pedagogical knowledge to be a less important attribute related to the student teacher.

Table 19

Merged Data Related to the Student Teacher

Qualitative Themes	Quantitative Survey Items How important are these dispositions in student teachers?	Student Teacher (*n* = 132)		University Supervisor (*n* = 32)		Aggregate (*n* = 164)	
		M	*SD*	*M*	*SD*	*M*	*SD*
Demonstrate work ethic	Work ethic	4.87	0.42	5.00	0.00	4.89	0.38
Are passionate about teaching	Motivation/Initiative	4.83	0.41	4.90	0.30	4.85	0.39
Exemplify professionalism	Perceived as a teaching professional	4.71	0.53	4.53	0.57	4.68	0.54
Demonstrate proficiency in content and pedagogy	Content knowledge	4.63	0.60	4.52	0.68	4.60	0.61
	Pedagogical knowledge	4.62	0.62	4.52	0.57	4.60	0.61
Flexible and willing to learn	NA	NA	NA	NA	NA	NA	NA
Maintain a positive outlook	NA	NA	NA	NA	NA	NA	NA
Actively involved in their school and classroom	NA	NA	NA	NA	NA	NA	NA

Note. Responses were reported on a five-point Likert scale ranging from 1 (*not important*) to 5 (*extremely important*). NA indicates the absence of quantitative data to merge with the qualitative themes.

Summary

Perceptions of student teachers and university supervisors regarding the important attributes of the mentor teacher, clinical environment, university supervisor, and student teacher were presented in Chapter 4. In summary, the mentor teacher was perceived as the most important factor within a quality student teaching experience. I utilized the merged data to identify the most important attributes of the four factors related to a quality student teaching experience. Student teachers and university supervisors perceived constructive feedback as the most important attribute related to both the mentor teacher and the university supervisor. Both groups perceived the most important attribute of a clinical environment as fostering the development of student teachers' individual teaching style. Finally, both groups perceived the most important attribute of student teachers is a strong work ethic. Based on the findings in Chapter 4, a detailed summary and expansion of the findings are discussed in Chapter 5.

Chapter 5: Conclusions

The study reported here used a concurrent mixed method design to examine the perspectives of student teachers and university supervisors regarding the factors and attributes of quality student teaching experiences. I utilized both Likert-scale, as well as constructed-response survey data from 132 student teachers and 32 university supervisors. In addition, I included qualitative data gathered from two focus groups of four student teachers each and one focus group which included six university supervisors. All of the data were collected simultaneously, analyzed separately, and then merged.

Research Purpose

There are several factors that positively affect the quality of the student teaching experience. These factors are closely related to the attributes of the mentor teacher, the clinical environment, the university supervisor, and the student teacher. The purpose of this study was to examine the perceptions of student teachers and university supervisors regarding the factors of a quality student teaching experience.

Research Questions

The following research questions guided this study:

1. What specific attributes do student teachers and university supervisors perceive as most important in a mentor teacher?

2. What specific attributes do student teachers and university supervisors perceive as most important in a clinical environment?

3. What specific attributes do student teachers and university supervisors perceive as

most important in a university supervisor?

4. What specific attributes do student teachers and university supervisors perceive as most important in a student teacher?

Overall, student teachers and university supervisors agreed that the mentor teacher was the most important factor in a quality student teaching experiences followed by the clinical environment and the university supervisor. In addition, student teachers and university supervisors agreed about the importance of specific attributes pertaining to each. The agreement between student teachers and university supervisors suggests that both groups are aware of the essential components of a quality student teaching experience.

Primary Conclusions

The following conclusions are based on merged data related to the attributes of each of the four factors in a quality student teaching experience. It is important to note that attributes related to the clinical environment, in some cases, overlap with the attributes of the mentor teacher due to the mentor teacher's central role in creating the clinical environment in which student teachers learn.

Important attributes of the mentor teacher. The most important attribute related to the mentor teacher was providing constructive feedback. Other attributes that were important included being responsive to student teacher needs; collaborating with student teachers in planning and teaching; welcoming student teachers in the school and classroom and validating student teacher classroom contributions; modeling effective teaching practices; and supporting student teachers professionally and personally. These attributes are supported by Glenn (2006) who stated that effective mentor teachers "collaborate rather than dictate, relinquish an appropriate level of control, allow for personal relationships, share constructive

feedback, and accept differences" (p. 88). Beck and Kosnik (2002) also found that student teachers value emotional support, peer relationship, collaboration, flexibility, and feedback from their mentor teachers. Each of these attributes strengthen the mentor teacher's ability to be an effective coach throughout the student teaching experience, promoting student teacher growth and development into a professional educator.

     Provides constructive feedback. Constructive feedback must be frequent and specific, and feedback should include strengths as well as provide opportunities for improvement. In addition, feedback must include suggestions for how to implement positive changes based on the opportunities for improvement. The mentor teacher cannot wait until the end of a unit or a semester to offer feedback. The nature of the feedback must be formative in order to help shape what the student teacher does daily in the classroom.

     Responds to student teacher needs. Responsiveness refers to mentor teachers' flexibility and acceptance of different ideas and instructional approaches. Responsiveness also includes sharing control of the classroom, promoting the exploration of an individual teaching style, and encouraging student teachers to feel comfortable enough in the classroom to find their own style without feeling pressured to imitate the teaching style of mentor teachers. It is essential that mentor teachers accept ideas of the student teachers' that might be different from their own.

     Collaborates with the student teacher. Collaboration between mentor and student teacher in lesson planning and teaching is essential. Co-teaching is a constructive way for mentor teachers to collaborate with student teachers during planning and while teaching. In the planning stage, mentor teachers collaborate with student teachers to provide insight and experience, provide curriculum guidance, helpful suggestions, and alternative ideas to

consider. During the teaching stage, it is important for mentor teachers to collaborate specifically in the area of classroom management.

Welcomes the student teacher. Mentor teachers can make student teachers feel welcome when they involve the student teachers in various professional responsibilities outside the classroom such as faculty, grade level, and departmental meetings. It is also important that the mentor teachers develop personal relationships with their student teachers so that the student teachers feel comfortable asking questions and taking risks. Making student teachers feel welcome also includes providing access to an appropriate workspace, office supplies, bulletin boards, lesson plans, handouts, and teacher's edition of books.

Models effective practice. Modeling effective teaching practices and professional responsibilities are important in promoting a quality student teaching experience. Mentor teachers must be exemplary educators and model effective teaching, classroom management, and reflection to help student teachers learn how to better meet the needs of students in the classroom. In addition to modeling effective teaching, management, and reflection strategies, mentor teachers must also model effective collaboration with colleagues.

Provides Support. Professional and personal support from mentor teachers is also important in promoting a quality student teaching experience. Student teachers who feel supported both professionally and personally seem more confident in their experience and in their abilities as teachers. Student teachers like to know that mentor teachers care about them as individuals and as growing professional educators and appreciate encouragement when they seem insecure or are unsuccessful.

Shares knowledge and experiences. Mentor teachers who were knowledgeable and experienced were perceived as more valuable in the student teaching experience. Student

teachers and university supervisors discussed the value of mentor teachers who have previously mentored student teachers. Experienced mentor teachers seem more comfortable sharing their classroom, more readily give up control of the classroom, and have a better understanding of the expectations of the university.

Important attributes of the clinical environment. The most important attributes related to the clinical environment include a welcoming faculty and supportive learning environment with clearly defined roles and expectations (Cohen et al., 2013; Pepper et al., 2012; Ulvik & Smith, 2011). In addition, the faculty and students in clinical environments should treat student teachers with the same level of respect as they do any other faculty member. The environments in which student teachers are placed must be aligned with the expectations of the university in order to help student teachers connect coursework to experiences (Cohen et al, 2013; Zeichner, 2010). The faculty within the clinical environment must also value teaching and learning for students and teachers. Student teachers should be placed in clinical environments which are reflective of cultural and learner diversity (Ronfeldt, 2012). These attributes must work together to create an environment in which student teachers are able to learn and thrive in order to be able to function in an authentic classroom of their own beyond graduation.

Welcoming and supportive. Clinical environments must be welcoming and support student teacher self-discovery. According to the merged data and the findings in the literature, student teachers must be placed in clinical environments where they feel welcomed and can develop their individuality as teachers, which includes taking risks, making mistakes, and experiencing failure (Caprano et al., 2010; Moody, 2009; Sayeski & Paulsen, 2012; Ulvik & Smith, 2011).

Supports clear roles and expectations. Clearly defined roles and expectations are essential in creating a clinical environment that best meets the needs of student teachers. Student teachers as well as university supervisors agreed upon the need for all stakeholders, student teachers, mentor teachers, and university supervisors, to have a unified understanding of the expectations pertaining to the student teaching experience from the beginning. The findings in this study support the findings in the literature that suggest that structure in a clinical environment is essential including: clearly articulated roles, expectations, outcomes, and processes for student teachers (Cohen et al., 2013; Cuenca, 2011; Ferrier-Kerr, 2009; Valencia et al., 2009).

Supports equal treatment. Clinical environments must also support equal treatment between student teachers and classroom teachers in the school. Treating student teachers with the same respect afforded to other faculty provides legitimacy to their role. Student teachers and university supervisors voiced the need for student teachers to be seen as pre-service teaching professionals and not assistants or secretaries in the classroom. One university supervisor confirmed this finding by stating, "Mentor teachers must have the ability to perceive student teachers as both peer and student 99% peer and 1% student."

Supports alignment with the teacher preparation program. Clinical environments must support alignment between the expectations of the teacher preparation program and the school. Student teachers must be able to connect what they have learned in their teacher preparation program to what they are seeing in the student teaching placement. Part of this alignment is the responsibility of the university supervisors as they serve as liaisons between the university and the placement schools in order to provide support to both student teachers and mentor teachers.

Values teaching and learning. Clinical environments must have faculties that support the value teaching and learning. This includes supporting professional development within the school as well as a quality learning environment for students. In addition to professional learning in the schools, both student teachers and university supervisors described the importance of having an environment that supports learning for all and focuses on the continual growth of faculty and students.

Reflects diversity. Clinical environments should also reflect diverse demographics. Schools that are chosen for student teaching placements must reflect diverse student populations that represent differences in cultural, socioeconomic, and learning abilities. Student teachers must have experience working in clinical environments that are different from where they were raised. Placing student teachers in diverse clinical environments that are outside of their comfort zones strengthens their ability to meet the needs of all students.

Important attributes of the university supervisor. The most important attributes related to the university supervisor seem limited. The quantitative survey measured two attributes which were compared to the six qualitative themes. The disproportionate comparison yielded only two merged results. The limited quantitative survey items were directly related to limited consensus in the literature from which the quantitative survey items were based.

Some researchers suggested that the role of university supervisor was a key factor in a quality student teaching experience (Boyd et al., 2009; Killian & Wilkins, 2009; Pepper et al., 2012; Ronfeldt & Reininger, 2012). Steadman and Brown (2011) argued that the role of university supervisor lacked continuity and advocated for consistency determining that the value of the role seemed inconclusive. While the findings in the literature lacked unity, the

findings in this study outline the positive value of the university supervisor role in a quality student teaching experience, specifically in the area of feedback.

Provides constructive feedback. University supervisors must provide constructive feedback to student teachers throughout the student teaching experience. The constructive feedback must be specific, timely, and ongoing. Student teachers commented on the need for university supervisors to provide specific feedback on lesson plans and classroom performance. Formative feedback from the university supervisors is essential to ensuring that the student teachers are adequately progressing throughout the rapidly paced student teaching semester.

Provides oversight. Student teachers often described their opinion about the value of their university supervisor. Student teachers who seemed dissatisfied with their university supervisor experiences felt a lack of connection and commitment on the part of the university supervisor. The student teachers who had actively involved university supervisors were appreciative and felt as though the university supervisor cared for them as individuals and were truly invested in them as future teachers.

Important attributes of the student teacher. The literature yielded few results related to the attributes of student teachers in a quality student teaching experience. The findings in this study confirm those of Franklin-Torrez and Krebs (2012) who highlighted motivation, initiative, work ethic, and professionalism as characteristics of successful student teachers. Each of these attributes are essential in establishing strong student teacher candidates in order to promote stability throughout the student teaching experience as well as sustainability beyond graduation.

Exhibits a strong work ethic. Work ethic was the most important attribute related to student teachers in this study. Student teachers and university supervisors agreed that student teachers must to be willing to work hard from the beginning to the end of the student teaching experience. Work ethic in this study was specifically related to punctuality, preparation, reliability, and responsibility.

Exhibits motivation and initiative. Student teachers must enter the student teaching experience motivated to learn and willing to take the initiative to do so. Motivation and initiative in this study related to enthusiasm, the ability to take charge, willingness to learn, and being eager to participate. While motivation and initiative are difficult to instill, the hope is that once student teachers reach the point of the student teaching, motivation and initiative are intrinsic and is based on learning and meeting the needs of pupils in the school.

Acts as a professional. While many student teachers articulated a desire to be viewed as professionals, this finding suggests that student teachers must work to represent themselves in this manner. Some student teachers demonstrate professionalism with less effort, while others may benefit from coaching and reflection to increase professionalism. Professionalism in this study was associated with being honest, trustworthy, respectful, humble, and organized.

Willingness to learn. This finding emphasizes the importance of a willingness to learn on the part of student teachers. Based on the perceptions of student teachers and university supervisors, it matters less what student teachers know when they begin student teaching, and it matters more their work ethic and willingness to learn throughout the experience.

Emergent Conclusions

      The following conclusions emerged during the analysis of the data but did not directly align with the research questions. The emergent conclusions incorporated both quantitative and qualitative data as well as inferences I made in observations.

      Importance of the mentor teacher. Both student teachers and university supervisors identified the mentor teacher as the most important factor in a quality student teaching experience. This view was consistent across participant groups and data sources. This finding supports the previous research concluding that while there are many variables that account for the quality of a clinical experience overall, the mentor teacher has the greatest impact in a quality student teaching experience (Beck & Kosnik, 2002; Moody, 2009; Ronfeldt & Reininger, 2012).

      Importance of constructive feedback. Based on the merged data reported in Chapter 4, student teachers and university supervisors reported constructive feedback as the most important attribute for both mentor teachers and university supervisors. The merged data suggest that constructive feedback is needed, and in some cases is lacking, from both mentor teachers and university supervisors. Confirming findings in the literature, student teachers and university supervisors suggested that constructive feedback is essential to quality student teaching experiences (Killian & Wilkins, 2009; Moody, 2009; Sayeski & Paulsen, 2012; Ulvik & Smith, 2011).

      Influence of the principal. Student teachers and university supervisors alike described the importance of the principal in creating an atmosphere of acceptance of student teachers within the school building. According to the student teachers and university supervisors, if a principal is supportive of hosting a student teacher in the school, the faculty

and staff were more inclined to be the same. Further, student teachers and university supervisors articulated the importance of having an effective principal leading the school which also impacts the school's climate and has a residual effect on the student teaching experience itself.

Differing perceptions about university supervisors. University supervisors reported their role as more important in a quality student teaching experience than the student teaching environment while student teachers reported the opposite. One university supervisor mentioned that the role of the university supervisor was sometimes seen as more important to the university than to the student teacher. Specifically, university supervisors act as liaisons between the university and placement schools and ensure that appropriate paperwork and documentation are completed appropriately.

Agreement between participants. Based on the quantitative data, most student teachers and university supervisors agreed on the overall level of importance of the attributes related to mentor teachers, clinical environments, university supervisors, and student teachers. Student teachers and university supervisors agreed exactly upon the ranking of the importance of the student teacher and university supervisor attributes. There were minor discrepancies in perceived importance of the attributes related to the mentor teacher and the clinical environment. This conclusion strengthens the findings in this study by suggesting that student teachers and university supervisors understand and identify similar factors that they consider to be essential to creating quality student teaching experiences.

Conceptual Framework Connections

The conceptual framework used in this study is that of cognitive apprenticeship (Collins et al., 1991). As stated in Chapter 2, Collins et al., (1991) outlined the four main elements to the cognitive apprenticeship as content, method, sequence, and sociology. Within the framework "content" refers to the types of knowledge required for the learner to achieve expertise, "method" describes the ways to promote the development of mastery, "sequencing" characterizes the order of learning activities, and "sociology" includes the social characteristics of learning environments (Collins et al., 1991). Together, these four elements increase the quality of a learning situation (Collins et al., 1991).

The most important elements of a quality student teaching experience, based on the merged findings, included *method* and *sociology*. *Method* in the context of this study specifically referred to modeling, coaching, scaffolding, and exploration. *Sociology* in this study specifically referred to community of practice, situated learning, and intrinsic motivation.

The most important attributes related to mentor teachers and university supervisors are most closely related to the teaching methods of *modeling, coaching, scaffolding, and exploration*. Mentor teachers and university supervisors both model desired behaviors which are beneficial to student teachers such as modeling lessons, classroom management, and interactions with other faculty. University supervisors model professionalism through their involvement and oversight throughout the student teaching experience including timeliness of feedback, frequency of contact, and effectiveness of their professional interactions within the school. Constructive feedback is part of the teaching method of *coaching* in that the mentor teachers and university supervisors are observing and offering constructive feedback

related to the student teachers' performance. Both mentor teachers and university supervisors must be responsive to student teachers' needs, which relates to exploration, and requires flexibility to meet the needs of the student teachers as well as being open to new ideas and perspectives they bring. Mentor and university supervisors support student teachers professionally and personally throughout the student teaching experience which is a component of the teaching method of *scaffolding*. Mentor teachers support student teachers through planning and co-teaching, whereas university supervisors support student teachers through involvement and oversight and provide continual support to help student teachers perform the tasks of teaching as well as develop skills through exploration and inquiry based problems and solutions.

The faculty and staff within the clinical environment are described within the element of *sociology* as part of a cognitive apprenticeship. Welcoming and supportive faculty and staff as well as supporting the value of teaching and learning are related to *community of practice.* Both of these attributes involve learning environments communicating to accomplish meaningful tasks, specifically teaching student teachers as well as the pupils in the school. Also related to community of practice would be the mentor teacher welcoming and validating student teacher's contributions and experiences in teaching. The mentor teacher is creating a community of practice even within the classroom with the student teacher.

Equal treatment among student teachers and classroom teachers and authentic placement demographics are related to situated learning. In order to provide meaningful student teaching experiences, student teachers must be treated as equals among teachers, be placed in authentic contexts, and be expected to do tasks that are representative of a realistic

teaching experience. Within the realistic teaching experience lies the student teachers'

motivation and initiative. The motivation and initiative that it requires to be successful in a

student teaching experience depends heavily on individual student intrinsic motivation.

Addressing Gaps in the Literature

The findings in this study largely confirm the previous literature regarding the factors

of a quality student teaching experience. New findings emerged from the qualitative data

analysis that highlight areas that have not been previously addressed related to university

supervisors and student teachers. These findings fit within the conceptual framework

elements of method, specifically *modeling, coaching, and scaffolding*, for university

supervisors, and sociology, specifically *intrinsic motivation*, for student teachers.

University supervisors. The qualitative themes here address the findings in the

current study in relation to gaps in the literature related to the university supervisor. The

findings from the qualitative data outline the importance of university supervisors being

responsive to each student teacher's learning situation. University supervisors also need to

establish and maintain relationships and connections to all stakeholders in the student

teaching experience including the student teacher, mentor teacher, pupils in the class, and the

principal. University supervisors should utilize their knowledge and experience in order to

ensure that responsibilities are met to satisfy the university and the placement school. In

many cases, student teacher participants reported that they relied heavily on the professional

guidance and support provided by the university supervisor. In some situations, student

teachers may be placed with a less than desirable mentor teacher, and in others a student

teacher may simply not have an aptitude for teaching. In these situations, student teachers

require additional personal support from their university supervisors either to encourage them

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to endure the struggle or guide them out of the profession altogether. Professionalism must be maintained in interactions with the student teacher, mentor teacher, other school individuals, as well as in asynchronous correspondences such as email or text messages. It is important that university supervisors model the same level of professionalism they expect from their student teachers.

  Student teachers. The qualitative themes here address gaps in the literature related to the student teacher. Student teachers and university supervisors referred to the passion for teaching as having a student-centered philosophy, being creative, caring, patient, and dedicated. While passion was a desired attribute, the consensus among university supervisors within the focus group was that passion was not something that could be taught. Student teachers seemed to either have a passion for teaching or they do not. Another attribute described by the qualitative data as important to student teachers is maintaining a positive outlook including being friendly and enthusiastic during the student teaching experience. This attribute, like passion, was considered desirable, but was also acknowledged as related to personality types. In comparison to other important student teacher attributes, punctuality and professionalism are learned behaviors, whereas passion and positivity were perceived as somewhat innate.

Limitations of the Study

  Limitations of this study are related to the sample and the use of perceptions in data collection. The samples for this dissertation were drawn from one mid-sized southeastern university of mostly elementary education majors. While these data seem to generally align with the findings in the literature, the regional specificity of this study is a limitation. Another limitation with this study is that the findings were based on perceptions and self-

report. What one individual perceives as important does not generate an absolute truth; however, it provides a relative reality as one perceives it. While this pragmatic philosophical grounding is beneficial for this study suggesting what is important to this study's sample, generalizing these findings to a more diverse setting may yield different results.

Implications

The findings from this study can inform teacher education programs at institutions of higher education. Specifically, these findings can be of value to coordinators and participants of student teaching experiences. The conclusions suggest that careful consideration be given to selection and preparation related mentor teachers, faculty in clinical environments, university supervisors, and student teachers. The selection and preparation of mentor teachers and university supervisors specifically strengthen the conceptual framework element of method due to the focus on coaching, modeling, scaffolding, and exploration. The selection and preparation of clinical environments strengthens the element of sociology to foster a greater environment in which student teachers learn. Using cognitive apprenticeship as a frame for developing student teaching experiences will strengthen the student teaching experience. As Collins (2006) described cognitive apprenticeship as incorporating the essential elements of an ideal learning situation. Providing specific development to the mentor teachers, faculty in clinical environments, university supervisors, and student teachers would strengthen the student teaching experience.

Mentor teacher selection. Based on the findings from the literature and from this study, the mentor teacher is the factor with the greatest impact on student teachers. Therefore, teacher education programs should carefully select mentor teachers who have experience and are able to demonstrate proficiency in providing constructive feedback,

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maintaining flexibility, fostering collaboration, modeling effective instruction, and establishing their potential as a coach to student teachers. According to university supervisors, they are sometimes able to identify potential mentor teachers in the schools in which they conduct their observations. University supervisors suggested that principals are also great resources in selecting strong mentor teachers due to their regular observations in teacher classrooms. The NCATE Blue Ribbon Panel (2010) supported the recommendation that mentor teachers must be rigorously selected. This was further supported by the AACTE (2010b) policy brief which called for mentor teachers to have a wealth of expertise and extensive experience.

Mentor teacher preparation. Mentor teachers must receive preparation in how to provide appropriate feedback, collaborate with student teachers, as well as scaffold and support student teachers both professionally and personally. Mentor teacher preparation and support programs should focus on how to properly observe student teachers, provide constructive feedback, collaborate, share responsibilities, and implement the co-teaching model within student teaching experiences. Mentor teachers should also have an understanding of teaching adult learners in order to effectively support student teachers.

Mentor teachers must see the value of their role in helping student teachers to bridge the transition from being students in a teacher preparation program to being a pre-service professional in the authentic context of the classroom. It cannot be assumed that all mentor teachers have this understanding or are equipped with the tools to effectively mentor student teachers. Effective preparation for all mentor teachers could help provide a means for mentor teachers to be equipped with the knowledge and skills they need to provide the best learning experience for their student teachers. The AACTE (2010b) policy brief supported the

recommendation of preparation of mentor teachers specifically in coaching and mentoring as well as supporting the learning of adult learners.

Clinical environment selection. In some cases, the university supervisors have influence in the selection of placements and in other cases the school district's human resources department decides placements. Based on the findings from this study, it would be advantageous for university supervisors to determine in which districts they have the most influence whilst actively pursuing the highest caliber potential mentor teachers to determine their interest in hosting a student teacher. Another consideration based on these findings is locating placements with welcoming and supportive faculties, strong school leadership, and a healthy school climate. When university supervisors have a district presence, personal experience, and connections within the schools, these relationships can be beneficial in mitigating potential problems and identifying desirable placements. The AACTE (2010b) policy brief also supported the recommendation to carefully select clinical settings to ensure rich learning environments for student teachers and pupils.

Clinical environment preparation. Teacher preparation programs should collaborate with districts to provide professional development and opportunities to further develop and enrich the school placements in which student teachers are placed. In addition to teacher preparation programs collaborating, preparing, and supporting placement schools, it is essential for teacher preparation programs to work collaboratively with schools and districts to have clearly defined roles and expectations for all participants, alignment between the teacher preparation program and the K-12 school, and authentic placement demographics. The clinical environment should reflect an accurate representation of typical student populations with regard to cultural and learner diversities. Both AACTE (2010b) and

NCATE (2010) agree that strong school/university partnerships must be established in order to foster a quality clinical environment for student teachers.

University supervisor selection. When selecting university supervisors, it is essential to select individuals who value the importance of constructive feedback and are able to demonstrate its use in order to support student teachers. Constructive feedback must be specific, timely, and provide suggestions for how to improve. University supervisors must also be actively involved throughout the student teaching experience. It is imperative to select university supervisors who are comfortable in school settings and are willing to become involved in the classrooms of the student teachers they are supervising.

University supervisor preparation. It is essential that university supervisors receive appropriate preparation in conducting observations, providing constructive feedback, conducting conferences and mediation, and supporting adult learners. University supervisors would also benefit from preparation in how to establish and maintain relationships between student teachers, mentor teachers, and other faculty. Student teachers and university supervisors alike mentioned that in some cases the university supervisor had to mediate among student teachers and mentor teachers from time to time therefore training in how to manage conflict would be beneficial. AACTE (2010b) supported the importance of establishing and maintaining relationships and for coordinating faculty to work closely with K-12 schools specifically the mentor teachers to assist and oversee the student teachers' experience.

Student teacher preparation. Once student teachers reach the student teaching experience, very little can be done regarding selection, therefore it is more important to focus on the preparation of student teachers prior to the student teaching experience. Based on the

findings from this study, it would be beneficial to incorporate student teaching seminars well before the student teaching experience in order to prepare student teachers in the areas of work ethic, professionalism, and school culture. School culture seminars could be divided with different emphases including school structure and school support services.

Seminars related to work ethic might include providing strategies to improve punctuality, organization, and management of assignments and tasks that are expected during the student teaching experience. Seminars related to professionalism might include providing examples of professional interactions, behaviors, and attire that are appropriate for the professional setting. Seminars related to school culture related to structure might include learning about professional learning communities, school improvement teams and plans, school hierarchy such as grade level chairs, and department chairs. School culture seminars related to support services might also include the various support services within traditional schools such as exceptional children, academically and intellectually gifted, English language learners, and student support services such as guidance counselors and school resource officers. Other beneficial seminars might include supporting students from diverse cultures and socioeconomic statuses. NCATE (2010) supported the recommendation for student teachers to have the opportunity to demonstrate content and pedagogy mastery as well as demonstrating their ability to be innovative, collaborative, and solve problems.

Further Research

The findings from this study have provided confirmatory evidence as well as contributed to previous findings surrounding the factors and attributes of quality student teaching experiences. Based on these findings, I have proposed the following potential next steps and possibilities for future research. First, confirming the consistency of the findings of

this study through a similar study including other universities within the same region or in other regions of the United States could strengthen the conclusions. Second, pursuing the importance of the principal's role in a quality student teaching environment would be of value. This finding emerged from multiple sources in the qualitative data. Student teachers and university supervisors in this study indicated that the principal sets the tone of the school, which affects the mentor teachers, and which may influence the student teachers' clinical experience. Third, developing a new survey instrument incorporating the merged findings for each factor to be distributed to other teacher preparation programs could strengthen the findings to the current study. Fourth, conducting a follow up study to gain the perspectives of mentor teachers and to learn more about the ways in which mentor teachers demonstrate the most important attributes found in this study. Lastly, conducting a follow up study to differentiate the responses of elementary education majors and secondary education majors to see if the findings differ depending on programs of study could be insightful.

Final Summary

Historically, student teaching is the culminating experiential learning internship for teacher preparation programs. Since this experience is repeated for thousands of young professionals each year, it is worth examining the factors that make quality student teaching experiences. I identified the mentor teacher as the most important factor in a quality student teaching experience. In merging both quantitative and qualitative data, I identified the most important attributes related to the mentor teacher, the clinical environment, the university supervisor, and the student teacher.

The implications for this study are beneficial to teacher preparation programs, specifically, to those who coordinate and participate in student teaching experiences. The

greatest benefactors of quality student teaching experiences are the current and future pupils of the student teachers. If teacher preparation and placement schools fail to provide quality student teaching experiences, today's student teachers will become tomorrow's classroom teachers who are either unprepared to enter the classroom and are ineffective, or may become part of the growing statistics of educators who leave the profession within the first few years of teaching. The conclusions from this study recommend careful consideration in selecting and preparing each of the factors related to a quality student teaching experience. With quality student teaching experiences being the culmination of teacher preparation, it is paramount to provide student teachers with the best student teaching experience possible.

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Appendix A: Institutional Review Board Exemption

![Appalachian State University logo]

To: Justin Mitchell

CAMPUS MAIL

From: Julie Taubman, IRB Administration
Date: 3/07/2014
RE: Notice of IRB Exemption
Study #: 14-0208

Study Title: Perceived Factors of a Quality Student Teaching Experience

Exemption Category: (1) Normal Educational Practices and Settings

This study involves minimal risk and meets the exemption category cited above. In accordance with 45 CFR 46.101(b) and University policy and procedures, the research activities described in the study materials are exempt from further IRB review.

Study Change: Proposed changes to the study require further IRB review when the change involves:

- an external funding source,
- the potential for a conflict of interest,
- a change in location of the research (i.e., country, school system, off site location),
- the contact information for the Principal Investigator,
- the addition of non-Appalachian State University faculty, staff, or students to the research team, or
- the basis for the determination of exemption. Standard Operating Procedure #9 cites examples of changes which affect the basis of the determination of exemption on page 3.

Investigator Responsibilities: All individuals engaged in research with human participants are responsible for compliance with University policies and procedures, and IRB determinations. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records. The PI should review the IRB's list of PI responsibilities.

To Close the Study: When research procedures with human participants are completed, please send the Request for Closure of IRB Review form to irb@appstate.edu.

If you have any questions, please contact the Research Protections Office at (828) 262-7981 (Julie) or (828) 262-2692 (Robin).

Best wishes with your research.

Websites for Information Cited Above

Note: If the link does not work, please copy and paste into your browser, or visit https://researchprotections.appstate.edu/human-subjects.

1. Standard Operating Procedure #9: http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/IRB20SOP 920Exempt%20Review%20Determination.pdf

2. PI responsibilities: http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI20Respo nsibilities.pdf

3. IRB forms: http://researchprotections.appstate.edu/human-subjects/irb-forms

CC:

Susan Colby, Curriculum And Instruction

Appendix B: Student Teaching Field Experience Survey

Student Teaching Field Experience Survey

Directions: Give each item a rating based on your experience and perceptions. Please be honest. Your responses will be kept confidential. The purpose of this survey is to identify which factors are **most important** in creating a quality student teaching experience.

How important is/are …?	Not Important				Extremely Important
constructive feedback from the **mentor teacher (cooperating teacher)**	1	2	3	4	5
constructive feedback from the **university supervisor**	1	2	3	4	5
positive feedback from the **mentor teacher**	1	2	3	4	5
opportunities for improvement (**critical feedbac**k) from the **mentor teacher**	1	2	3	4	5
frequent feedback with **specific recommendations** from the mentor teacher	1	2	3	4	5
it for the student teacher to **be recognized as a teacher** within the classroom and school	1	2	3	4	5
it for the student teacher to **feel included** by the principal and other staff	1	2	3	4	5
the **overall school climate** to student teacher success (student demographics and teacher quality)	1	2	3	4	5
student demographics to student teacher success (high poverty versus affluent, rural versus urban)	1	2	3	4	5
the **student teaching environment**	1	2	3	4	5
the **mentor teacher (cooperating teacher)**	1	2	3	4	5
the **university supervisor**	1	2	3	4	5
university supervisor involvement and oversight	1	2	3	4	5
it for the **student teaching setting reflect cultural and learner diversities**	1	2	3	4	5
it for **student teachers to observe teaching best practices** from the **mentor teacher (cooperating teacher)**	1	2	3	4	5
clear goals and outcomes to the student teaching experience	1	2	3	4	5
clearly defined roles and expectations of student teachers, mentor teachers, and university supervisors	1	2	3	4	5
duration of the **student teaching experience (remain one semester)**	1	2	3	4	5
duration of the **student teaching experience (extend to year-long)**	1	2	3	4	5

How important is it for the <u>Mentor Teacher</u> (Cooperating Teacher) to…?	Not Important				Extremely Important
team teach with the student teacher	1	2	3	4	5
collaborate with the student teacher in **lesson planning**	1	2	3	4	5
turn over **gradual responsibility/give up control** to student teacher	1	2	3	4	5
foster **collaborative reflection**	1	2	3	4	5
foster **tethered teaching** (student teacher teaching while mentor teacher is close by to respectfully intervene when appropriate)	1	2	3	4	5
have **flexibility** in teaching methods	1	2	3	4	5
accept differences between styles and opinions of student teacher and mentor teacher	1	2	3	4	5
develop a **personal relationship** with the student teacher	1	2	3	4	5
offer **emotional support** to the student teacher	1	2	3	4	5
balance professional and emotional support of students	1	2	3	4	5
show care, compassion, encouragement and support to student teachers	1	2	3	4	5
develop a **colleague/peer relationship** with the student teacher	1	2	3	4	5
receive training to facilitate student teacher development	1	2	3	4	5
be **supported in their role** as mentor teacher by university supervisor	1	2	3	4	5
model reflection on their practice	1	2	3	4	5
model collaboration with colleagues	1	2	3	4	5
model balancing personal needs and **work** stresses	1	2	3	4	5
allow student teachers to **see the realities and challenges** of the teaching profession	1	2	3	4	5
include the student teacher in **all professional activities** (meetings, trainings, etc.)	1	2	3	4	5
share lesson plans with the student teacher	1	2	3	4	5
share handouts and **class materials**	1	2	3	4	5
for the mentor teacher to **share teacher resources** (textbooks, websites, teacher manuals)	1	2	3	4	5
be comfortable **allowing** the **student teacher** to **try new instructional approaches**	1	2	3	4	5
to **collaborate** in **teaching practices**	1	2	3	4	5

How important is it…?	Not Important				Extremely Important
for the student teacher to **feel comfortable to make mistakes**	1	2	3	4	5
for the student teacher to **develop his/her individual teaching style**	1	2	3	4	5
for the student teacher **be empowered to take risks**	1	2	3	4	5
for student teacher to **be able to connect** to what they have learned in the **university coursework to field experiences**	1	2	3	4	5
overall **mentor teacher quality** to student teacher success	1	2	3	4	5
mentor teacher teaching experience (years taught) to student teacher success	1	2	3	4	5
student teaching experience **require self-reflection** on **practice**	1	2	3	4	5
student teaching experience **require self-reflection** on personal **growth**	1	2	3	4	5
Student Teacher Dispositions- **How important are these dispositions of student teachers?**	Not Important				Extremely Important
Motivation/Initiative (enthusiasm, energetic, ability to take charge, willingness to learn, eager to participate)	1	2	3	4	5
Work ethic (punctuality, reliability, responsibility)	1	2	3	4	5
Desire to **be viewed as a teacher**	1	2	3	4	5
Content knowledge	1	2	3	4	5
Pedagogy knowledge/teaching methods	1	2	3	4	5

Demographic Information: (All Participants) Please select the most appropriate choice for each category.

Age: 18-22   23-27   28-32   33-37   38-42   43-47   48-52   53-57   58-62   63-67   >67

Sex: Male   Female

Ethnicity: Asian   African-American   Caucasian   Hispanic   Native American   Bi-racial

Grade Level for student teaching placement: Pre-K, K, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Grade Span of Placement   Elementary School,   Middle School,   High School

Content Area of Placement: General/Elementary,   ELA,   Math,   Science,   Social Studies,   Other

School Placement Context: Urban Rural   Suburban

School Placement Demographics: Affluent   Middle Class   High Poverty

School Placement Teacher Turnover: High Turnover   Average Turnover Low Turnover

<u>**University Supervisors Only:**</u>

How long have you served as a university supervisor? 0-3   4-7   8-11   12-15   16-19   20-23   24-27   28-31   >31

How many student teachers have you supervised (including this semester)? 1 2 3 4 5 6 7 8 9 10 11-15 16-20 >20

How many student teachers did you supervise this semester? 1 2 3 4 5 6 7 8 9 10 11-15 16-20 >20

Constructed Response Items

Directions: Please write your responses below the prompt. You do not have to write complete sentences if you do not wish, a simple bulleted list will be sufficient.

What **specific attributes** do you consider **most important** in a **mentor teacher**?

What **specific attributes** do you consider **most important** in a **clinical environment (classroom/school dynamics)**?

What **specific attributes** do you consider **most important** in a **university supervisor**?

What **specific attributes** do you consider **most important** in a **student teacher candidate**?

Appendix C: Focus Group Interview Protocol

For the purpose of the focus group data collection the focus group questions have been created based on the factors outlined in the literature and expounded upon in the quantitative survey. To ensure alignment of content, the focus group questions are similar to the open-ended response items on the survey. While the survey responses collect breadth within the sample, the focus group questions will hopefully stimulate depth to the topics.

Focus group questions will include the following main questions to elicit responses, and then followed by probing questions to be used if the main questions seem to yield minimal responses:

- What was your overall impression of your student teaching experience?
- What do you feel are the most important factors in a quality student teaching experience?
- How important is the mentor teacher to creating a quality student teaching experience?
    - Why do you feel that way?
    - What specific attributes are most important in a mentor teacher?
- How important is the clinical environment to creating a quality student teaching experience?
    - Why do you feel that way?
    - What specific factors are most important in a clinical environment?
- How important is the university supervisor to creating a quality student teaching experience?
    - Why do you feel that way?

- o What specific attributes are most important in a university supervisor?

- How important are overall student teacher dispositions to a quality student teaching experience?

  - Why do you feel that way?

  - What specific attributes are desirable in a student teacher?

Vita

Justin O'Neill Mitchell was born in Statesville, North Carolina, to Jody and Cathy Mitchell. Dr. Mitchell has a younger brother, Christopher. Growing up, Dr. Mitchell developed a love for service and learning. At the age of 13, he earned the rank of Eagle Scout. A product of the Iredell-Statesville Schools, Dr. Mitchell attended Central Elementary School, North Iredell Middle School, and North Iredell High School. He was a 2001 graduate from North Iredell High School, a May 2004 graduate with an Associate of Arts degree from Mitchell Community College, and a December 2006 graduate with an Elementary Education degree from Appalachian State University. In December 2010, Dr. Mitchell earned his Master of Arts degree in Elementary Education from Appalachian State University. He earned his Doctor of Education in Educational Leadership from Appalachian State University in December 2014.

Dr. Mitchell is a National Board Certified Teacher and holds a license as a Curriculum Instructional Specialist (K-12). He resides in Statesville, N.C. with his wife, Janelle, and son, Tate.