

THE ROLE OF STUDENT TEACHING IN
BALANCING STUDENT TEACHERS'
EDUCATOR ROLE PROFILE

By

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Abstract: Over the past several years, agricultural education has faced a shortage of qualified teachers to fill the ever-growing vacancies throughout the United States. This lack of qualified teachers has put the pressure on teacher preparation programs to take on the challenge of preparing student teachers to thrive in the experiential world of agricultural education. Previous studies have focused on teacher preparation but few studies have examined the effectiveness of teacher preparation programs, specifically the effectiveness of the student teaching experience, in preparing student teachers to be experiential educators. This non-experimental survey design study aimed determine the impact of the student teaching experience on student teachers' experiential educator skill development. Thirty-six student teachers from four representative universities in Oklahoma and Texas completed a modified summated needs assessment version of Kolb, Kolb, Passarelli and Sharma's (2014) Educator Role Profile three times: pre-, mid- and post- student teaching. The findings of this study revealed that student teachers were highly involved in high school agricultural education and the FFA but most did not grow up on a farm. It also found student teaching enhances all four roles in varying amounts and ways, narrows the gaps between importance and competence and between competence and authentic assessment, and grows perceived competence in all educator roles. Student teachers do not find being an expert important nor do they think they are good at it, are predominately coaches, and grew the most between the mid- and post-administrations in both importance and competence. Authentic Assessment revealed growth only in the facilitator role. Needs assessments in each administration indicated that student teachers have different skill needs at distinctive stages of their student teaching experience. Recommendations include providing opportunities to connect with the agricultural industry and agricultural content, reevaluating agricultural education course requirements, using the ERP as a part of the student teacher feedback process, educating student teachers are the importance of utilizing the stages of ELT and the ERP roles in their classrooms and providing cooperating teachers with training on the educator roles to improve evaluation.

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CHAPTER I

INTRODUCTION

In agricultural education, the student teaching experience is relied heavily on to teach the skills needed to be successful both in and out of the classroom (Borne & Moss, 1990; Byler & Byler, 1984; Edwards & Briers, 2001; Krysher, Robinson, Montgomery, Edwards, 2012; Schumann, 1969). This critical portion of teacher education shapes perceptions and attitudes as well as provides opportunities for growth (Edgar, Roberts, & Murphy, 2009; Grossman, Hammerness & McDonald, 2009; Schumann, 1969; Smalley, Retallick & Paulsen, 2015; Stripling, Ricketts, Roberts & Harlin, 2008; Young & Edwards, 2006). Student teaching is intended to develop student teachers into well- rounded educators (Lambert, Sorensen & Elliott, 2014).

Research revealed that student teaching improves student teacher efficacy and morale (Briers & Byler, 1979; Schumann, 1969; Stripling et al., 2008,). Researchers in agricultural education identified the following knowledge and skills as necessary to learn during student teaching: (a) pedagogy, (b) laboratory instruction, (c) guidance, and (d) coaching within SAE and FFA (Blackburn, Robinson, & Field, 2015; Edwards & Briers, 2001; Krysher et al., 2012). Several researchers found student teachers believed the student teaching experience improved their curriculum development, instructional delivery and planning application skills (Smalley et al., 2015; Stripling et al., 2008; Young and Edwards, 2006). Baker, Robinson & Kolb (2012)

expressed the need for teacher education programs to “prepare teachers to serve as coaches, facilitators, subject experts and standard setters while teaching experientially in both formal and non-formal settings” (p.12). Teacher education programs need to focus on instruction on pedagogical skills that will prepare teachers to be successful (Briers & Byler, 1974; Chong & Cheah, 2010; Flanders, 1963; Goodwin et al., 2014; Hollins, 2011; Ingersoll, 2012; Scheeler, 2007, Smalley et al., 2015; Touchstone, 2015; “U.S. Department”, 2015). In agricultural education, this means training teachers to facilitate experiential learning (Knobloch, 2003; Millenbah & Millspaugh, 2003; Roberts, 2006). Agricultural education instructors need to be able to successfully lead students through the full experiential cycle (Baker et al., 2012; Dewey, 1938; Svinicki & Dixon, 1987). Kolb (2015) made clear what teaching experientially means however there is little evidence to confirm that agricultural education truly meets this description. Roberts (2012) also speaks to anonymity of experiential learning in the classroom as a barrier to progression. In order to determine if agricultural education is truly experiential, a definition of what experiential learning is needed.

Background of the Study

Experiential learning is “the process whereby knowledge is created through the transformation of experience” (Kolb, 2015, p. 49). This process involves learners completing a four-part cycle that includes concrete experience (CE), reflective observation (RO), abstract conceptualization (AC) and active experimentation (AE) (Kolb, 2015). According to Kolb, as learners’ complete multiple cycles, they grow and development in their comprehension and depth of understanding.

Historically, experiential learning has been embedded in the identity of agricultural education (Baker et al, 2012; Cheek & McGhee, 1985; Knobloch, 2003; Roberts, 2006). Philosophers such as John Dewey, Seaman Knapp, Rufus Stimson and William Lancelot helped

shape the experiential structure of early agricultural education programs (Knobloch, 2003). Agricultural education programs are inherently experiential because they include classroom and laboratory instruction as well as other components designed to provide experiences in agriculture (Baker et al. ,2012; Cheek & McGhee, 1985; Croom, 2008). To facilitate this all-inclusive experienced-centered education, agricultural education instructors need to utilize all four learning modes outlined in Kolb's Educator Role Profile (Baker & Twenter, 2016).

Kolb, Kolb, Passarelli and Sharma (2014) created the Educator Role Profile to describe the role of the teacher in experiential learning. Educators take on the roles of coach, facilitator, expert and evaluator (Kolb et al., 2014). Each of these roles align with the cycle described in Kolb's (2015) Experiential Learning Theory (ELT). According to Kolb et al. (2014), teachers have preferences for certain roles, they should use all four roles equally to facilitate the entire learning cycle.

The statements in Kolb et al.'s (2014) Educator Role Profile mimic Boyatzis and Kolb's Executive Skills Profile (ESP; 1995) and Learning Skills Profile (LSP; 1997). The ESP and LSP measure growth in skill development and allow for feedback to facilitate advancement (Kolb et al., 2014). Kolb et al. (2014) stated to grow confidence and ability in each role, educators need an opportunity to practice. Teacher preparation programs in agricultural education provide this practice through the student teaching experience (Borne & Moss, 1990, Krysher et al., 2012, Schumann, 1969; Young & Edwards, 2006).

The Problem

Agricultural education teacher preparation programs across the United States rely on the student teaching experience to teach the pedagogical skills that make educators successful (Byler & Byler, 1984). Experiential learning is the foundation of agricultural education and should be taught to student teachers to ensure that they can facilitate experiences in and out of the

classroom (McLean & Camp, 2000). Baker and Twenter (2016) found the student teachers at Oklahoma State University to be unbalanced in their preferred role as an experiential educator, with 88% preferring the coaching role over the other three roles. Shoulders and Meyers (2013) found agricultural educators do not utilize all four modes of learning when planning and delivering content in laboratory settings and provide little balance in the amount time each stage of the experiential learning cycle. Use of all four roles best facilitates a high quality experiential learning experience (Kolb, 2015). Kolb (2015) also stressed, “with practice both learners and educators can develop the flexibility to use all roles” (p. 303).

Many agricultural educators who embrace the concept of experiential education have not operationalized the skills needed to teach experientially. Roberts (2012) asked, “How do we hang on to the distinctive ways experiential education frames the educational process while at the same time ensur[e] that it does not become quaint and overly isolated? (p.9). Experiential learning needs to be defined to legitimize its role in education (Kirschner, Sweller, & Clark, 2006). The uncertainty surrounding experiential learning impedes bridging theory and practice (Roberts, 2012).

Need for the Study

The need for evaluation of teacher preparation in agricultural education is apparent and the use of experiential learning should be a large part of this evaluation (Baker & Twenter, 2016). In order to legitimize experiential learning in agricultural education, teachers must be taught experiential learning skills and techniques (Baker & Twenter, 2016). Student teachers should learn how to adapt their teaching style to allow for all four educator roles to be utilized in every lesson (Baker & Twenter, 2016). The student teaching experience allows student teachers to develop and hone their teacher skills to prepare them for their own classrooms (Blackburn et al., 2015; Edwards & Briers, 2001; Lambert et al., 2014). Skill development is crucial in student

education to produce confident and successful classroom teachers (Briers & Byler, 1979; Schumann, 1969; Stripling, Ricketts, Roberts, & Harlin, 2008). Due to the amount of reliance placed on student teaching, the effectiveness of this educational practice needs to be evaluated for its effectiveness at preparing experiential educators (Cruickshank & Armaline, 1986).

Purpose of the Study

The purpose of this study was to determine the impact of the student teaching experience on student teachers' experiential educator skill development.

The purpose of the study supports the 2016-2020 National Research Agenda of the American Association of Agricultural Education (Roberts, Harder, & Brashears, 2016). The findings of this study are relevant to the development of research Priorities 3, 4 and 5 as they address the following areas: (a) supporting teacher success at all stages of development through effective methodology, (b) identifying competencies needed for agricultural jobs and educating others, (c) developing effective models for teacher preparation, (d) delivering content to meet the needs of learners and (e) determining the impact of educational programs (Roberts et al., 2016).

Statement of the Research Objectives

This study was guided by seven research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.
2. Identify agricultural education student teachers' perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers' perceived competence of experiential educator skills prior to, during, and after student teaching.

4. Identify cooperating teachers' authentic assessment of student teachers' experiential educator skills.
5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

Definition of Terms

Authentic Assessment: an evaluation of student teachers' skills from their cooperating teacher.

Agricultural Education: "a systematic program of instruction available to students desiring to learn about the science, business, and technology of plant and animal production and/or about the environmental and natural resources systems" (The National Council for Agricultural Education, 2012, ¶ 1).

Competence: participants' perception of their ability to perform corresponding skills related to their success in the classroom (Borich, 1980).

Cooperating Teacher: A student teachers' supervising teacher from their placement site during their student teaching experience.

Experiential Learning: "the process whereby knowledge is created through the transformation of experience" (Kolb, 2015, p. 49).

Educator Roles: “an application of the ELT concepts of the learning cycle and learning style in the dynamic matching model of teaching around the learning cycle” (Kolb et al., 2014, p. 36).

The four educator roles are coach, facilitator, expert, and evaluator (Kolb et al., 2014).

Importance: participants’ level of belief that the corresponding skills are important to their success in the classroom (Borich, 1980).

Needs Assessment: instrumentation format that measures competencies, or skills, related to being effective educators (Borich, 1980).

Pedagogical Skills: skills associated with the art of teaching (Nilson, 2016)

Skills: a “combination of ability, knowledge, and experiences that enables a person to do some things well” (Boyatzis & Kolb, 1995, p. 4).

Student Teacher: students who are enrolled in agricultural education programs and are engaged in their student teaching experience (Iannaccone, 1963).

Student Teaching: the culminating experience in a teacher preparation program that agricultural education relies on to facilitate teacher growth (Hatton & Smith, 1995).

Limitations of the Study

Due to the longitudinal self-reported perceptual nature of the study, several limitations to generalizability need to be acknowledged. First, because participants in this study were selected based on convenience, the findings from the sample cannot be generalized to the population (Johnson & Christensen, 2014). Convenience sampling does not provide equal opportunity for the entire population to participate and therefore, “it is often unclear what specific population” the sample comes from (Johnson & Christensen, 2014).

Second, because the sample only included four institutions in two states, findings cannot be generalized outside of participant student teachers in Oklahoma and Texas. The sample did not include other regions of the country, private colleges and universities, or small colleges and universities. Due to the similarities between the participating institutions, student teachers may only represent one group of student teachers within agricultural education.

Third, due to the limited supply of student teachers who are student teaching each semester and access to institutions willing to participate, this study contained a small population. This led to a small available sample size. Sample size can limit findings and make it difficult to determine significant outcomes (Johnson & Christensen, 2014). Field (2013) stressed the importance of checking normality for smaller sample sizes and recommended a sample size of at least thirty.

Finally, longitudinal studies often suffer from attrition. This study relied on both the participants and their cooperating teachers to complete multiple instruments over time and if one entity did not complete a round the participant had to be removed from the study. This reduced the number of useable responses, and the remaining response could skew the representation of the population.

Assumptions of the Study

During preparation, collection, and analysis of this study, the following assumptions were made:

1. When self-reporting importance and competence, student teachers responded with sincerity and were objective in their evaluation.
2. Cooperating teachers provided an impartial evaluation of their student teachers' competence for each skill.

3. Both student and cooperating teachers approached each administration of the instrumentation with a new perspective and answered each question diligently.
4. Student teacher's perceptions of each skills' importance and competence can be measured with the instrument utilized in this study.

Chapter Summary

This chapter provided a background for the study related to preparing experiential educators in agricultural education. The need for the study was discussed and led to the development of seven research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.
2. Identify agricultural education student teachers' perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers' perceived competence of experiential educator skills prior to, during, and after student teaching.
4. Identify cooperating teachers' authentic assessment of student teachers' experiential educator skills.
5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

Chapter two will provide an in-depth analysis of the literature that was presented in this chapter. The theoretical framework for the study will be described and literature related to teacher shortages, experiential learning, skill development, and teacher preparation will be discussed.

CHAPTER II

REVIEW OF LITERATURE

This study utilized a convenience sample of student teachers from Oklahoma State University, Tarleton State University, Texas A&M University, and Texas Tech University. Using the 60 stems from the Educator Role Profile (Kolb et al., 2014), student teachers who were engaged in their student teaching experience were asked to rate their level of perceived importance and competence on skills related to being an experiential educator. The instrument utilized the Borich Needs Assessment Model (Borich, 1980) with two-column weighted 4-point summated scales. Sampling occurred during three intervals- the first three weeks of student teaching experience, at the midway point of the experience and during the final three weeks of their student teaching experience. Corresponding cooperating teachers also completed a questionnaire assessing their perception of their student teachers' competence for each skill midway through and at the completion of their experience. Discrepancy scores between importance and competence, as well as student competence, and cooperating teacher authentic assessment were calculated for each distribution and compared to track changes throughout the duration of the student teaching experience. Chapter I included a background of the study, need for the study, problem statement, purpose, research questions, definitions, significance of the study's findings of the study, limitations, and assumptions. Chapter II provides an in-depth review of literature related to the study. Sections of literature include the need for qualified teachers in the United States, the need

for qualified teachers in agricultural education, experiential roots in agricultural education, theoretical framework, defining skills and uses for development, student teaching shapes perceptions and provides opportunities for growth and a chapter summary.

Need for Qualified Teachers in the United States

A teacher shortage exists in the United States resulting in a need for 200,000 new teachers each year (Howard, 2003). The United States Department of Education (USDE) has declared teacher shortages as the biggest threat to schools nationwide (Aragon, 2016). Darling-Hammond (2000) found the major contributing factor in student academic success is teacher quality. Various states, including Oklahoma and Texas, have enlisted task forces to examine this issue (Aragon, 2016). This substantial need can be attributed to an increase in students, teacher attrition, and lack of qualified teachers (Hussar, 1999). To meet this need, alternative certification has been utilized by teachers of all subject matters (Darling-Hammond, 2005). Although this alternative is getting teachers into the classroom, it also is contributing to the lack of qualified teachers and teacher attrition (Hollins, 2011). Numerous school systems have decreased their teacher qualification standards to fill vacancies, and this has in turn led to lower school performance (Ingersoll, 2002). Nationwide, one-quarter of all new teachers enter the profession without having fully met their state licensing standards (McCreight, 2000).

Lancelot (1929) stated “those succeed best who are most capable and efficient in their work; and those who are incapable and inefficient eventually fail” (p. 3-4). Teachers who are experts in their content area but have less pedagogical knowledge are more likely to leave the profession after their first few years (Ingersoll et al., 2012). Hawk, Coble and Swanson (1985) found student achievement is higher in classrooms taught by a teacher who completed a teacher preparation program. Less time should be invested in teaching content knowledge and more in

pedagogical knowledge because pedagogical knowledge improves teacher quality and confidence (Cochran, King & DeRuiter, 1991).

The USDE President, Kati Haycock, stated, “Few issues in education are more important than ensuring equitable access to high-quality teachers” (“US Department”, 2015, p.1).

Goldhaber (2002) stated teacher preparation programs should hold student teachers to high standards and prepare educators to positively impact student achievement. To create quality educators, teacher preparation programs need to stress the development of skills pedagogical skills, interpersonal skills, reflective skills, personal skills, and administrative and management skills (Chong & Cheah, 2010). Schleer (2007) said, “Teachers cannot generalize skills they have not adequately learned” (p. 146). Student teachers need to “bridge theory and practice” by learning practical skills they can apply in the classroom (Flanders, 1963, p. 256).

Need for Qualified Teachers in Agricultural Education

A shortage of qualified teachers has also affected agricultural education (Boone & Boone, 2009). According to the National Teach Ag Campaign, there was a deficit of more than 400 agriculture teachers during the 2014- 2015 academic school year (The National Teach, 2014). The American Association for Agricultural Education (AAAE) reported 27 of 47 states suffered a loss of programs or agricultural educator positions due to lack of qualified applicants (Foster et al., 2014). One cause of the teacher shortage in agricultural education is younger teachers do not feel equipped to manage and facilitate their own classrooms (Boone & Boone, 2009).

Pedagogical knowledge exceedingly important in agricultural education (Touchstone, 2012). Agricultural educators need to be equipped with multiple ways to help their students achieve the expected objectives (Boone & Boone, 2009). Student teachers identified skills related to planning instruction and teaching to be the most crucial for development during their student teaching experience (Smalley et al., 2015). Lawver and Torres (2011) found that student teachers

who are confident in their pedagogical knowledge are more likely to join the profession.

Unfortunately, young agricultural educators, regardless of their teacher preparation, lack efficacy in their ability to teach in an effective, engaging, and informative way (Touchstone, 2012).

Student teachers should be able to “demonstrate proficiency in content knowledge, learning theory, pedagogy, pedagogy-centered knowledge, and professional knowledge” (Whittington, 2005, p. 92). Touchstone (2012) found of the 50 challenges that teachers identified as areas of need for future education, 16 items pertained to teacher skills and knowledge. Krysher et al. (2012) found that student teachers do not feel confident in their ability to vary instruction, construct quality lesson plans, and be an agricultural subject expert. Student teachers are receiving content knowledge throughout their college education but are unsure how to transfer this knowledge into the classroom in an informative and engaging manner (Rice & Kitchel, 2015).

Teacher education programs need to instruct on a variety of methods and focus on developing practical skills to create a more well-rounded future educator (Goodwin et al., 2014). Briers and Byler (1974) found that student teacher morale was higher among student teachers who felt that they received more formal pedagogical training. Agricultural education teachers need experience and need to feel efficacious about skills associated with “evaluation of student performance, teaching, SAE, FFA, planning instruction, teaching profession, school-community relations and adult education” (Smalley et al., 2015, p. 78). Student teachers need to be prepared to facilitate all three circles and utilize experiences to educate students (Boone & Boone, 2009).

Agricultural Education is naturally experiential (Baker, et al., 2012; Dewey, 1938; Knobloch, 2003; Millenbah & Millspaugh, 2003; Roberts, 2006; Svinicki & Dixon, 1987). To facilitate quality experiential education, student teachers need to become more well-rounded in their approach to experiential education (Baker & Twenter, 2016). A “fabulous haze” exists

regarding what the term experiential learning means exactly (Roberts, 2012, p. 8). Therefore to legitimize experiential education, educators need a complete and specific definition (Roberts, 2012).

Theoretical Framework

This study is framed by Kolb's (2015) Experiential Learning Theory and Kolb et al.'s (2014) Educator Role Profile. This review will discuss, the six propositions for learning, the Experiential Learning Theory (Kolb, 2015), Model of Experiential Learning Theory of Growth and Development (Kolb, 2015) and the Educator Role Profile (Kolb et al., 2014). Experiential learning is defined as "the process whereby knowledge is created through the transformation of experience" (Kolb, 2015, p. 49). By this definition, all learning is experiential (Kolb, Boyatzis & Mainemelis, 2001). Kolb (2015) outlines six propositions resulting from a synthesis of previous scholars of experiential learning:

- "Learning is best conceived as a process, not in terms of outcomes" (Kolb, 2015, p.37). Knowledge and ideas are not fixed but are molded and remolded throughout experiences (Kolb et al., 2014). Outcomes, on the other hand, are past notions that are not fluid in nature and do not allow for continual learning (Kolb, 2015).
- "Learning is a continuous process grounded in experience" (Kolb, 2015, p.38). Learners are constantly using experiences to develop knowledge and test new theories (Kolb & Kolb, 2005). Kolb (2015) implied by the notion that all learning is relearning because the learner brings with them a past experience.
- "The process of learning requires the resolution of conflicts between dialectically opposed modes of adaption to the world" (Kolb, 2015, p.40). Learning naturally consists of tension and conflict that when resolved leads to the creation of new knowledge, skills

or attitudes (Kolb, 2015). The way a conflict is resolved among modes decides the level of learning that occurs (Kolb & Kolb, 2005).

- “Learning is a holistic process of adaption to the world” (Kolb, 2015, p. 43). The creation of knowledge involves the “total-organism” including their thoughts, feelings, perceptions, and behaviors in all settings and life stages (Kolb, 2012).
- “Learning involves transaction between the person and environment” (Kolb, 2015, p. 45). The environment plays an important role in the learning process, and the real-world is the best stimuli for active learning (Kolb, 2015).
- “Learning is the process of creating knowledge” (Kolb, 2015, p. 48). Knowledge is created through the exchange amid social and personal comprehension.

Experiential learning allows the learner to come into direct contact with the experiences being studied and through this merger of learner and environment, knowledge is formed (Kolb et al., 2001). Often, experiential education carries a stigma of ambiguity, and a clear understanding of its place and function in education is needed to provide authority to this educational framework (Roberts, 2012).

The Experiential Learning Theory

Using a synthesis of experiential research, Kolb (2015) created the Experiential Learning Theory (ELT) which describes experiential learning as a holistic cycle composed of four dialectically opposed learning modes (see Figure 1). ELT depicts learning as a two-dimensional process in which a learner grasps and transforms knowledge. These two dimensions are used during a cyclical process that involves four parts: concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE) (Kolb, 2015).

CE allows the learner to connect with the subject through an immediate “here and now” experience (Kolb, 2015, p.67). This experience serves as the catalyst for the remainder of the cycle. RO allows the learner to process the experience and develop feelings, ideas and an area of interest within the experience (Kolb et al., 2001). Abstract conceptualization (AC) is the search for outside knowledge that leads to the formation of a theory (Kolb, 2015). Active experimentation allows the learner to test out their theory and (AE) (Kolb & Kolb, 2005). Transactions between these four modes of learning lead to the resolution of the two dialectically opposed modes, allowing for learning to occur (Kolb & Kolb, 2009).

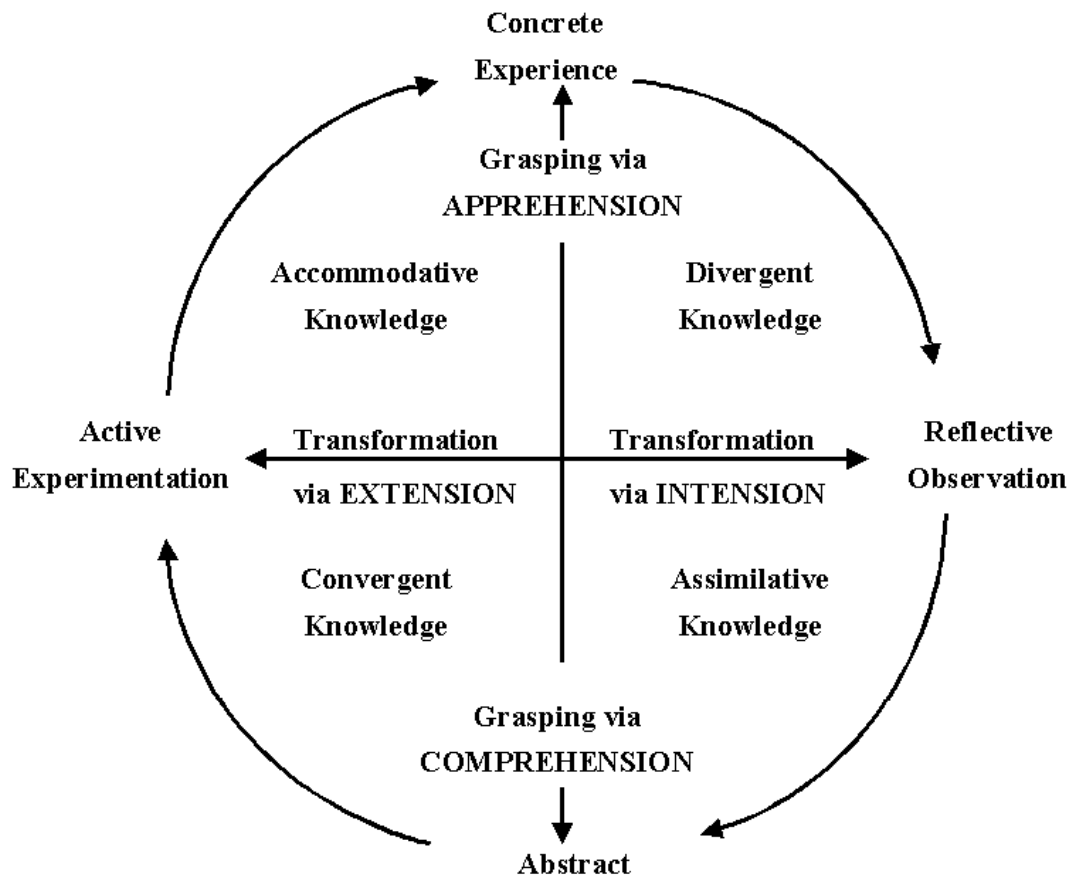


Figure 1. The model of the experiential learning process. Reprinted from *Experiential Learning: Experience as the Source of Learning and Development* (p. 68), by David A. Kolb, 2015, Englewood Cliffs, NJ: Prentice- Hall, Inc. Copyright 1984 by Prentice-Hall, Inc.

Learners grasp and transform knowledge during the four phases of the cycle (Kolb, 2015). During AC, knowledge is grasped via comprehension while grasping via apprehension occurs during CE (Kolb & Kolb, 2009). Transformation via intention occurs during RO whereas transformation via extension is used during AE (Kolb & Kolb, 2009). Although learners have preferred modes of learning, using all four modes provides the most holistic and complete learning experience (Kolb, 2015). Kolb (2015) describes a quest for learning and development of one's "self" as "a dynamic continuous process of learning from experience that takes a unique developmental path for every individual, motivated organismic drive for actualization" (p. 139).

The Experiential Learning Theory of Growth and Development

Through a continuous learning process, developments occur through constant integration of the four learning modes (Kolb, 2015). Kolb's (2015) *Experiential Learning Theory of Growth and Development* shows that as integration occurs so does growth in behavioral, symbolic, affective, and perceptual complexity (see Figure 2). Movement up the cone of development occurs in three stages: acquisition, specialization, and integration (Kolb, 2015). During the early stages of development, integration of the four modes is less fluid and each mode usually occurs independently; however, "at the highest stages adaptive commitment to learning and creativity produces a strong need for integration of the four adaptive modes" (Kolb, 2015, p. 205).

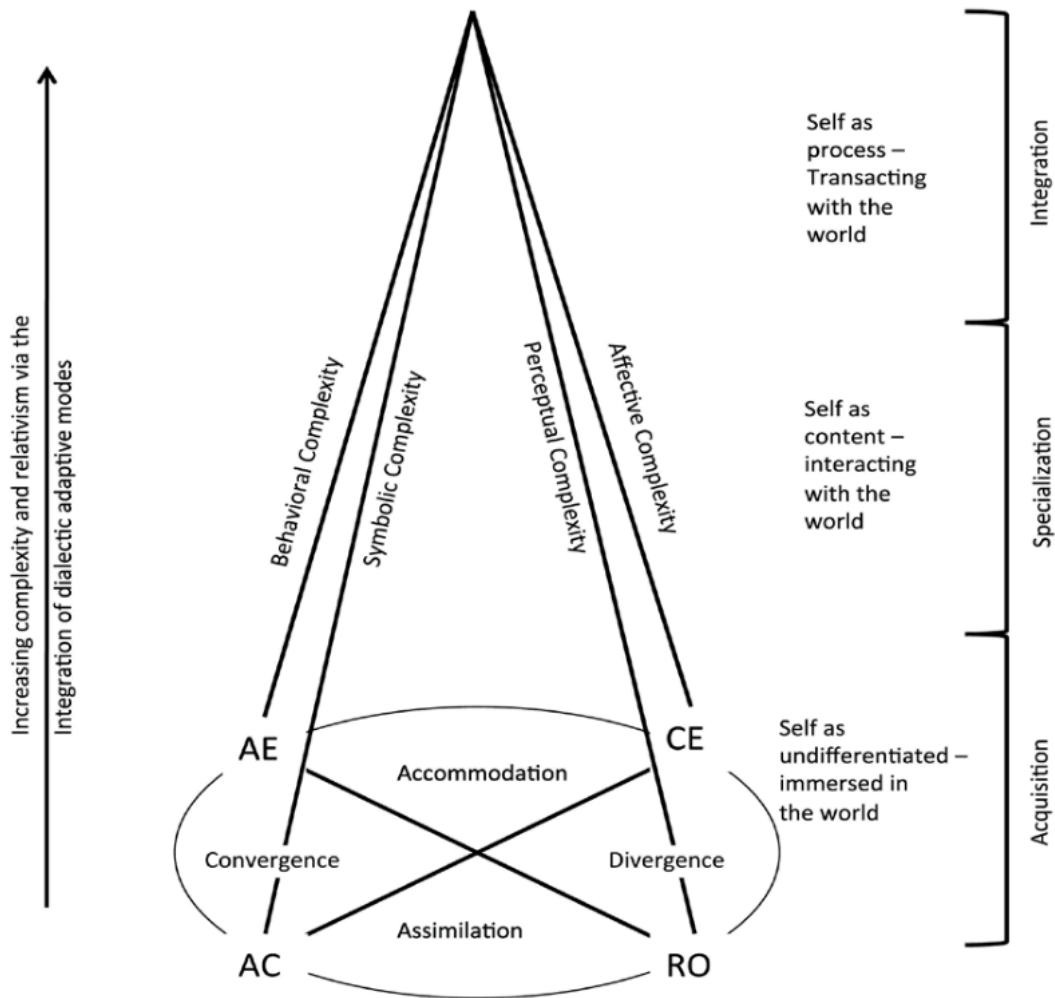


Figure 6. Model of Experiential Learning Theory of Growth and Development. Reprinted from *Experiential Learning: Experience as the Source of Learning and Development* (p. 206), by David A. Kolb, 2015, Englewood Cliffs, NJ: Prentice- Hall, Inc. Copyright 1984 by Prentice-Hall, Inc.

In the acquisition stage, which occurs from birth to adolescence and is based on the work of Piaget (1971), individuals gain basic learning capabilities and develop learning structures (Kolb, 2015). This developmental stage involves accommodative and divergent learning, concrete operations and representational and hypothetical deductive reasoning (Kolb, 2015). Development is attained when the child acquires the internal structures that allow them to separate their sense of self from their surrounding environment (Kolb, 2015).

Stage two, specialization, occurs during involvement in formal education into early adulthood and work life (Kolb, 2015). This stage forces specialization because of increased use of modes of learning used most often in education or the workplace (Kolb, 2015). Individuals who specialize achieve a sense of self through the attainment of competence in a particular adaptive mode (Kolb, 2015).

Finally, some individuals reach the third developmental stage, integration (Kolb, 2015). Integration allows for the resolution of conflicts between societal demands and personal fulfillment (Kolb, 2015). In order to reach this stage, a shift in frame of reference used to experience life and make choices is required (Kolb, 2015). Modes of adaption that were previously neglected now provide new clarity and new opportunities (Kolb, 2015).

Educator Role Profile

In order to describe the “application of the ELT concepts of the learning cycle and learning style in the dynamic matching model of teaching around the learning cycle”, Kolb, Kolb, Passarelli and Sharma (2014, p. 220) created the Educator Role Profile. To successfully complete the experientially learning theory cycle, students need their educator to facilitate the four modes of learning (Baker, et al., 2012). The educator role profile (ERP), figure 7, framework is based on the ELT that describes the process an educator needs to properly facilitate experiential learning with their students (Kolb, et al., 2014).

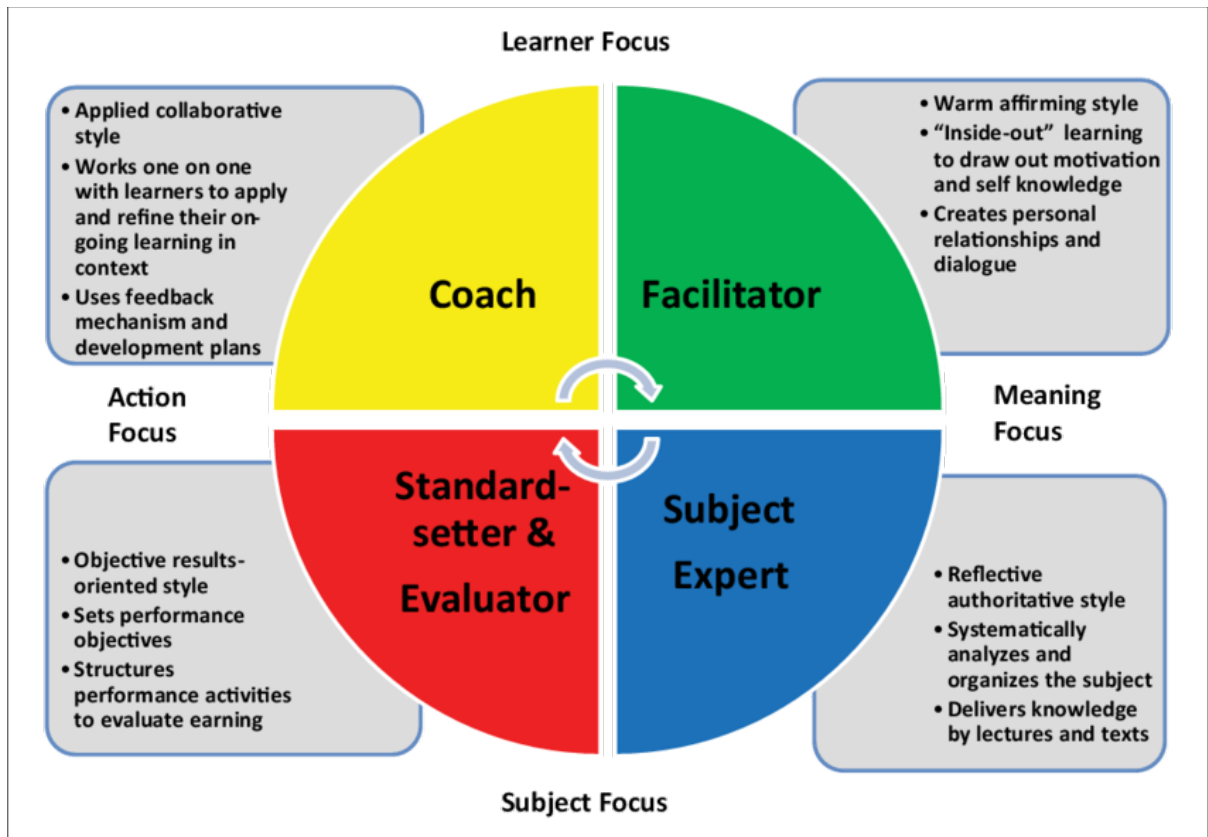


Figure 3. Educator Role Profile. Adapted from “On Becoming an Experiential Educator: The Educator Role Profile” by A. Kolb, D. Kolb, A. Passarelli, and G. Sharma, 2014, *Simulation and Gaming*, 45(2), p.220. Copyright 2014 by SAGE Publications.

Educator roles need to be interchangeable for the whole ELT process to successfully occur, as shown in Figure 3 (Kolb, 2015). The ERP bridges theory and practice (Kolb, et al., 2014). These roles include: Facilitator, Subject Expert, Standard Setter/ Evaluator and Coach (Kolb, et al., 2014). Kolb (2015) describes these roles as:

The Facilitator Role. When facilitating, educators help learners get in touch with their personal experience and reflect on it. They adopt a warm affirming style to draw out learners’ interests, intrinsic motivation, and self-knowledge. They often do this by facilitating conversation in small groups. They create personal relationships with learners.

The Subject Expert Role. In their role as subject expert, educators help learners organize and connect their reflections to the knowledge base of the subject matter. They adopt an authoritative, reflective style. They often teach by example, modeling and encouraging critical thinking as they systematically organize and analyze the subject matter knowledge. This knowledge is often communicated through lectures and texts.

The Standard-Setter/Evaluator Role. As a standard-setter and evaluator, educators help learners master the application of knowledge and skill to meet performance requirements. They adopt an objective results oriented style as they set the knowledge requirements needed for quality performance. They create performance activities for learners to evaluate their learning.

The Coaching Role. In the coaching role, educators help learners apply knowledge to achieve their goals. They adopt a collaborative, encouraging style, often working one-on-one with individuals to help them learn from experiences in their life context. They assist in the creation of personal development plans and provide ways of getting feedback on performance. (p. 304)

Taking on each role is imperative because “each educator role engages students to learn in a unique manner, using one mode of grasping experience and one mode of transforming experience” (Kolb, 2015, p. 306). The ERP describes these roles as learner focused: coaching and facilitating, and subject focused: subject expert and standard-setter and evaluator (Kolb et al., 2014). Kolb et al, (2014) also defines the coaching and standard setter & evaluator roles as action focused, whereas the facilitator and subject expert roles are considered meaning focused.

Kolb (2015) described the relationship between using ELT and the development of high order thinking and transferability of knowledge (see Figure 4). As students are facilitated through the ELT cycle by an instructor using all four educator roles, student develop the ability to

complete the cycle alone and understand their experiences on a deeper and more sophisticated level (Kolb, 2015). Their actions become more effective leading to proficiency and the creation of higher-level knowledge (Kolb, 2015).

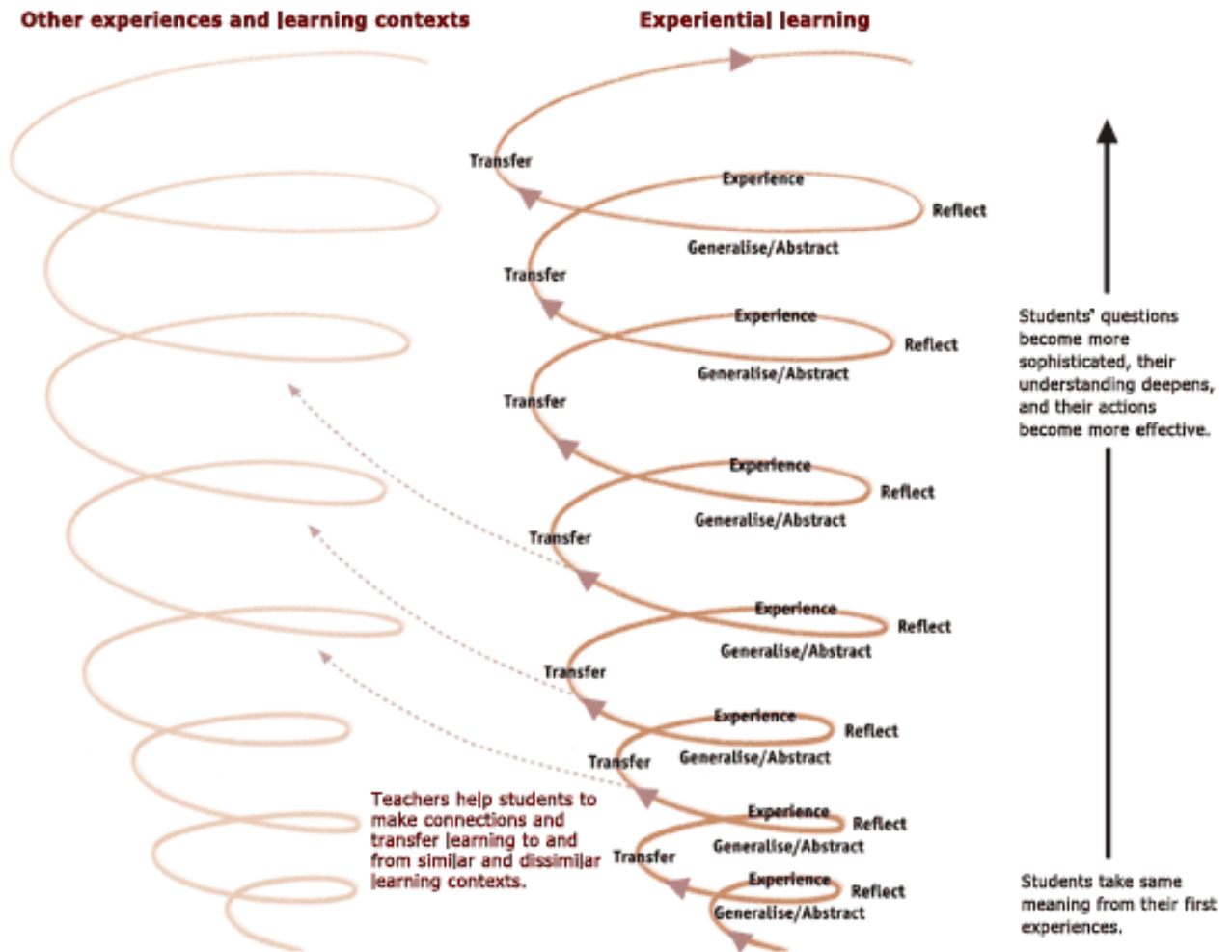


Figure 4. Teaching and the learning spiral. Reprinted from *Experiential Learning: Experience as the Source of Learning and Development* (p. 68), by David A. Kolb, 2015, Englewood Cliffs, NJ: Prentice- Hall, Inc. Copyright 1984 by Prentice-Hall, Inc.

Educators tend to have a preference for one or two roles because of their “educational philosophy, their personal teaching style, and the requirements of their particular educational setting” (Kolb, 2015, p. 305). However, with practice educators can adapt and develop the

flexibility to use all four roles with proficiency (Kolb, 2015). Flexibility creates “a more powerful and effective process of teaching and learning” (Kolb, 2015, p. 306).

Experiential Roots in Agricultural Education

Agricultural education is rooted in experiential learning (Baker, Robinson & Kolb, 2012; Cheek & McGhee, 1985; Knobloch, 2003; Roberts, 2006). Experiential learning is embedded in agricultural education because it allows students to create knowledge in a variety of settings and contexts (Kolb, 2015; Roberts, 2006). Research of the effectiveness of experiential learning activities in agricultural education reveals students who engage in intentionally planned experiential learning had greater increases in observation, communication and comparison science process skills (Mabie & Baker, 1996). Baker and Robinson (2016) found that experiential learning encourages more creativity and practicality than direct instruction. Moreover, experiential learning allows students to learn concepts at a deeper level and facilitates the growth of “the fruits of higher intellectual achievements, not only in classrooms and schools, but more importantly, in their role as adults as contributing citizens of society” (Knobloch, 2003, p. 32).

Experiential learning has been an integral part of secondary agricultural education since its founding (Stewart & Birkenholz, 1991). Knobloch’s (2003) Pillars of Experiential Learning in Agricultural Education outlined four educational philosophers within agricultural education who contributed to the experiential nature of today’s programs. These philosophers included John Dewey, Seaman A. Knapp, Rufus W. Stimson, and William H. Lancelot (see Figure 5).

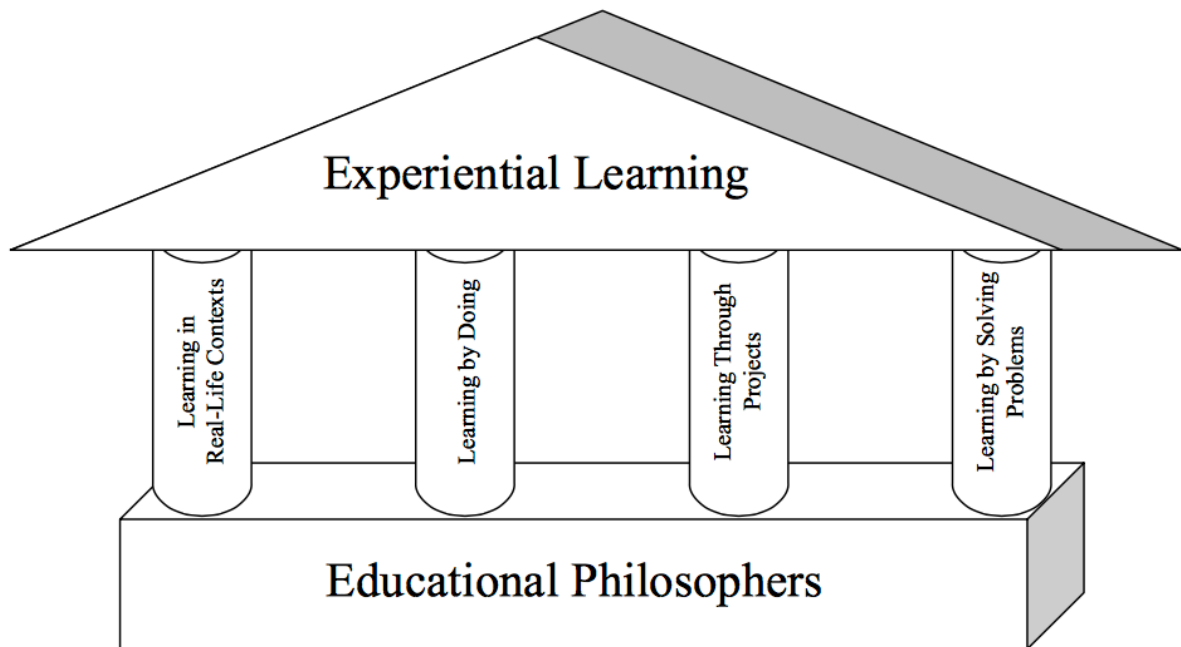


Figure 5. Knobloch's (2003) Pillars of Experiential Learning in Agricultural Education.

Reprinted from "Is Experiential Learning Authentic?" by Neil A. Knobloch, 2003, *The Journal of Agricultural Education*, 44(4), p. 27.

John Dewey believed strongly in the power of setting context and providing students the opportunity to apply what they learned in real life (Knobloch, 2003). Context allows students to look beyond the classroom and apply the concepts to real life which in turn creates the desire for more experiences and deeper learning (Dewey, 1938). Dewey (1938) said experiences must be "conceived that the result is a plan for deciding upon subject-matter, upon methods of instruction and discipline, and upon material equipment and social organization of the school" (p. 28). Experience without context and real life application can be mis-educative and can distort future experiences (Dewey, 1938). Knobloch (2003) reflect Dewey's contributions in the *learning in real-life contexts* pillar.

Seaman A. Knapp's mantra of "learning by doing" has become such an integral part of agricultural education that it is included in the National FFA motto (Knobloch, 2003). Knapp, the father of Agricultural Extension Education, believed students learn best when they have the opportunity to learn through action rather than listening or observing (Knobloch, 2003; Lever, 1952). This learning philosophy led to the creation of the demonstration teaching method (Bliss, 1952). Knapp encouraged agricultural educators to use the demonstration to allow students to solve agricultural problems independently and grow beyond an elementary understanding of agricultural concepts and skills (Knobloch, 2003). Knapp's contribution significantly shifted the methods used in agricultural education and is reflected in Knobloch's (2003) model in the *Learning by Doing* pillar.

Rufus W. Stimson believed "neither skill nor business ability can be learned from books alone, nor merely from observation of the work and management of others. Both require active participation, during the learning period" (Stimson, 1919, p. 32). This belief drove his establishment of the project method, which required students to apply the concepts they learned in class to their own area of interest (Stimson, 1919). This method enabled deeper learning to occur and facilitated the transcendence of the taught context (Stimson, 1919). Stimson (1919) also believed the project method motivated student learning because of its active and inquiry-based nature. The project method in agricultural education still is utilized today in the form of supervised agricultural experiences (Moore, 1988). Stimson's contribution to agricultural education is reflected in Knobloch's (2003) model in the *Learning Through Projects* pillar.

William H. Lancelot introduced the problem-solving teaching method as a way to "engage at all times in good thinking" (Lancelot, 1929, p. 143). Lancelot (1929) believed strongly that without thinking nothing can be learned and that the role of education is to create independent thinkers who can answer their own questions. Educators are charged with teaching students how to solve problems rather than teaching concepts (Lancelot, 1929). Problems take on

three different forms in agricultural education: application, understanding of knowledge and establishment of new facts or general truths (Lancelot, 1929). Educators should incorporate all three forms to optimize student learning and development of “good thinking” (Lancelot, 1929, p. 2). Lancelot’s impact on agricultural education is illustrated through the *Learning by Solving Problems* pillar in Knobloch’s (2003) model.

Historically, experiential learning in agricultural education was recognized almost exclusively in the utilization of supervised agricultural experiences as an application of the content taught during classroom instruction (Hughes & Barrick, 1993). Agricultural Education needs to move beyond simply *doing to learn* and on to allowing students to create and utilize knowledge that can be applied later on in life (Knobloch, 2003). Experiential learning has a role in all components of agricultural education, not just supervised agricultural experiences (Baker et al., 2012).

Ideal Use of Experiential Learning in Agricultural Education

Experiential learning in agricultural education should “(a) encompass each of the three components of the agricultural education model, (b) require purposeful and planned support from the agricultural education instructor, (c) lead to the development of important meta-cognitive skills, and (d) include curriculum planning and assessment” (Baker et al, 2012, p. 6). Baker et al. (2012) enriched the current agricultural education model to include the role of experiential learning. The Comprehensive Model for Secondary Agricultural Education (Baker et al., 2012) expresses the need for all elements of agricultural education to be experiential (see Figure 6). By embedding experiential learning cycle in each of the three circles of agricultural education, learners are gaining experiences in different contexts which allows for the creation of deeper and more meaningful knowledge (Baker et al., 2012). Baker et al. (2012) provided a clear picture of utilizing multiple contexts during the learning process.

For example, a student may be involved in an Introduction to Agriscience class (Instruction) which could be defined as a formal setting, focusing on abstract concepts, over the period of one semester, with the goal of exposure and participation to key agricultural concepts and FFA opportunities. Another student may be involved with their SAE project, in a non-formal setting, more focused on concrete skills, over the course of four years, with the goals of internalization and dissemination around their specific interest and career choices (p. 8-9).

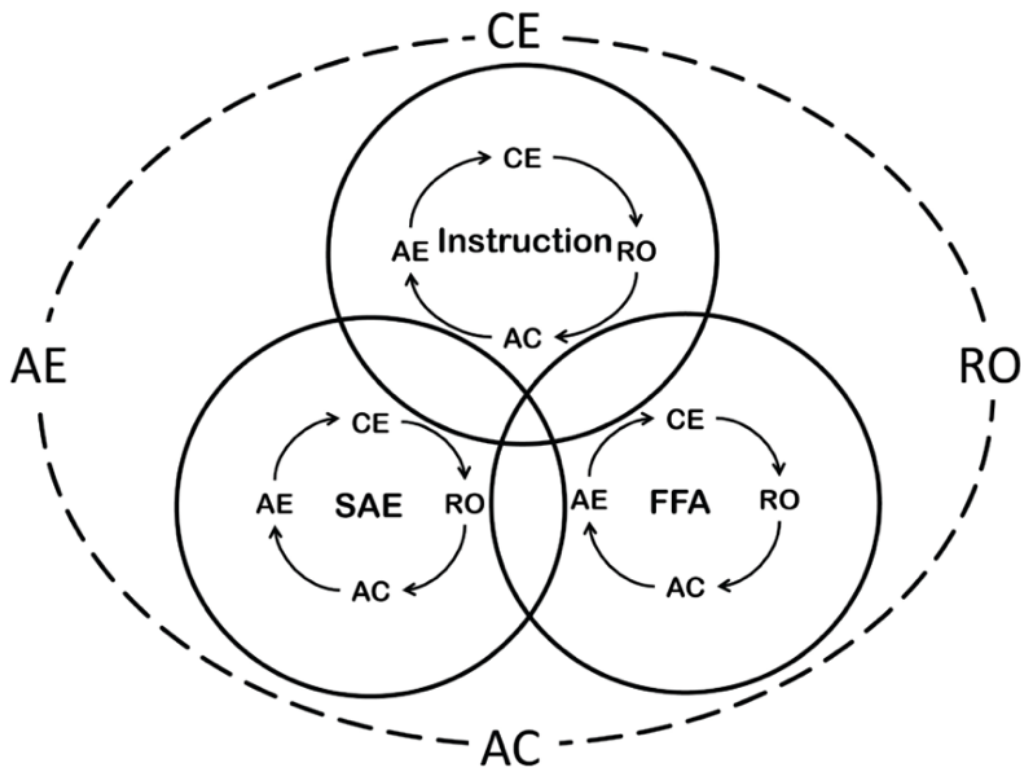


Figure 6. Baker et al's (2012) Comprehensive Model for Secondary Agricultural Education .
 Reprinted from "Aligning Kolb's Experiential Learning Theory with a Comprehensive Agricultural Education Model" by M.A. Baker, J.S. Robinson, and D.A. Kolb, 2012, *The Journal of Agricultural Education*, 53(4), p. 9.

The experiential learning cycle is ongoing and allows students to develop knowledge complexity through continual cycles. These continuous cycles are illustrated through Baker's et al. (2012) Growth and Development Model for Secondary Agricultural Education (see Figure 7). Ideally through integrating experiential learning in all three elements of agricultural education, students are moving up the cone of development and increasing behavioral, symbolic, affective and perceptual complexities (Baker et al., 2012). As these complexities build so do the experiential taxonomy (Baker et al., 2012). As more cycles occur, students should move from just sheer exposure to the content all the way to dissemination of the content (Baker et al, 2012).

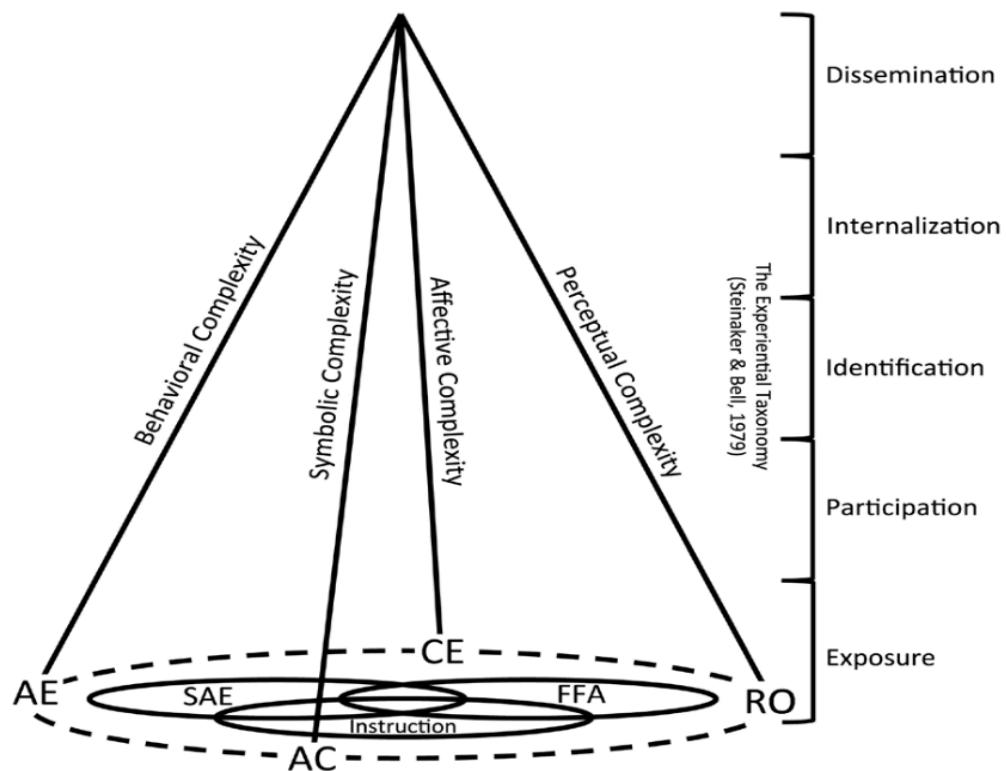


Figure 7. Baker et al's (2012) Growth and Development Model for Secondary Agricultural Education. Reprinted from "Aligning Kolb's Experiential Learning Theory with a Comprehensive Agricultural Education Model" by M.A. Baker, J.S. Robinson, and D.A. Kolb, 2012, *The Journal of Agricultural Education*, 53(4), p. 11.

All three elements of agricultural education should encompass rich experiences (Baker et al., 2012). Roberts (2006) discussed the elements that should be addressed when designing experiences to ensure that context and richness are optimized (see Figure 8). Four dimensions of an experience should be intentionally planned: duration, intended outcome, setting and level (Roberts, 2006).

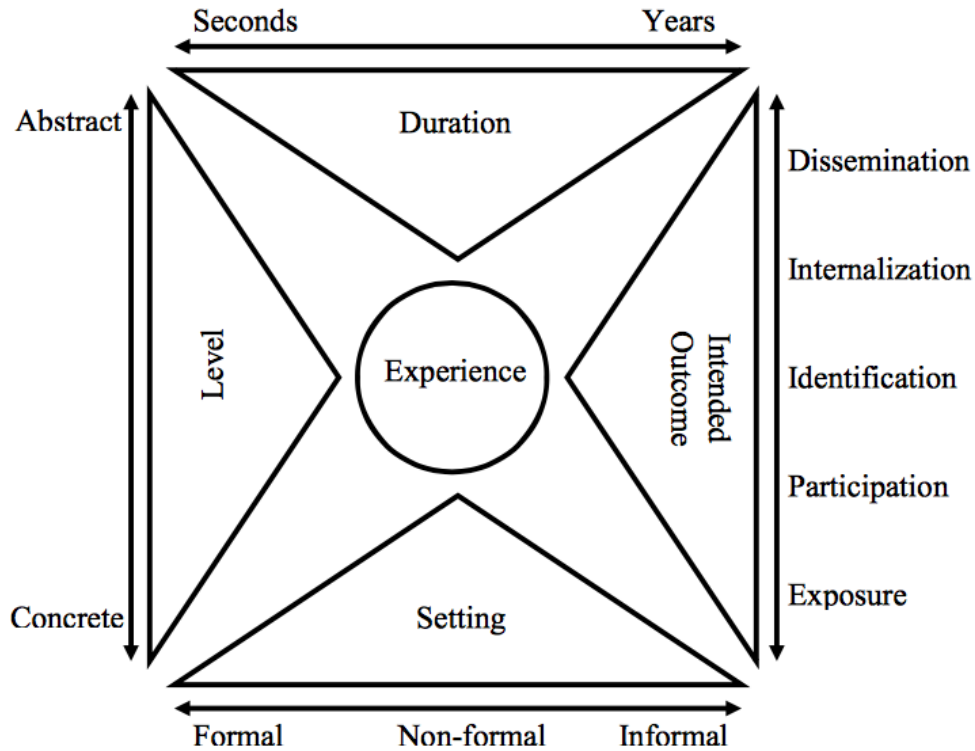


Figure 8. Robert's (2006) Model of Experiential Learning Contexts. Reprinted from "A Philosophical Examination of Experiential Learning Theory for Agricultural Educators" by T. Grady Roberts, 2006, *The Journal of Agricultural Education*, 47(1), p. 26.

Duration is the length of time an experience will occur and ranges from seconds to years (Roberts, 2006). Intended outcome is the level of taxonomy a student should reach at the duration of the experience (Roberts, 2006). Experiential taxonomy ranges from: exposure, participation, identification, internalization, or dissemination (Steinaker & Bell, 1979). Setting is the type of

learning environment in which the experience will take place: formal, non-formal or informal (Roberts, 2006). Finally, the level of experience should be considered (Roberts, 2006).

Experiences can range between abstract and concrete (Roberts, 2006). By selectively creating experiences, educators are able to ensure that each experience sets their intended context (Roberts, 2006).

Comparison of Ideal and Actual Utilization of Experiential Learning by Agricultural Educators

Padron and Waxman (1999) stressed the need for agricultural educators to shift from delivering content to facilitating active learning. Teacher must become “constructive” rather than “instructive” (Mabie & Baker, 1996, p. 3). These calls to action can be accomplished through the implementation of experiential learning (Roberts, 2006). To initiate the experiential cycle, teachers need to start with a student’s current understanding and build on it (Baker et al., 2012). Agricultural Educators need to capitalize on natural experiences and lead in-depth reflection to making meaning (Baker et al., 2012). Teachers should serve as constant guides to help students construct knowledge and “must be present and mindful throughout the experiential process to guide and direct the learning process” (Baker et al., 2012, p. 7). Instructors need to teach around the experiential learning cycle to optimize learning.

The reality of experiential education in agricultural education is teachers are not equipped to utilize all four stages of ELT nor are they balanced in their ERP preferences (Baker & Twenter, 2016; Shoulders & Meyers, 2013). Shoulders and Meyers (2013) found when examining educational methods of agricultural educators in laboratory settings, only three stages of the experiential learning cycle were used 45% of the time. Agricultural educators utilized CE and RO more often whereas AC and AE were more likely to be omitted from the lesson entirely (Shoulders & Meyers, 2013). CE occupied 43.4% of laboratory time and time reflecting and AE consumed less than 20% each (Shoulders & Meyers, 2013).

Baker and Twenter (2016) found student teachers at Oklahoma State University to be unbalanced in their preferred role as an experiential educator, with 88% preferring the coaching role heavily over all three other roles. These same student teachers had a low preference for the expert and facilitator roles, preferred by only 1.7% (Baker & Twenter, 2016). This imbalance in role preference could be from a lack of confidence in the skills associated with each educator role (Baker & Twenter, 2016).

Skill Development

Boyatzis and Kolb (1995) defined a skill as a “combination of ability, knowledge and experiences that enables a person to do some things well” (p. 4). Skills must meet three important criteria:

- “Skills are domain-specific and knowledge-rich” (Boyatzis & Kolb, 1995, p. 4). Skills should not be highly specific nor easily generalized (Fleishman, 1982). They should also be useful across a range of tasks (Boyatzis & Kolb, 1991).
- “A skill describes an integrated transaction between the person and the environment” (Boyatzis & Kolb, 1995, p. 4). Skills should involve routines that encourage combining knowledge, ability and environment to provide application (Boyatzis & Kolb, 1991). This allows for a capability check between person and environment (Boyatzis & Kolb, 1995). However, certain skills may require some separation from environment to allow for reflection and generalization (Boyatzis & Kolb, 1991).
- “Skills are developed by practice” (Boyatzis & Kolb, 1995, p.5). Through learning from experience, skills can be developed in a manner that leads to variety and intrapersonal development (Boyatzis & Kolb, 1991). Skills are developed in three stages: cognitive, associative, and autonomous (Fitts, 1964). In the cognitive stage, initial learning occurs and learners establish a knowledge basis (Fitts, 1964).

Learning errors are corrected throughout the associative stage, and the learner strives for continued improvement during the final autonomous stage (Fitts, 1964).

Boyatzis and Kolb (1995) adapted this definition of a skill to define a learning skill. A learning skill, when aligned with the experiential learning theory, describes an individual's ability to discover concepts themselves to master a specific learning domain (Kolb et al., 2001).

Learning Skills can be purposefully developed through practice (Kolb, 2015). Boyatzis and Kolb (1995, 1997) used a Q-Sort method to explore and categorize skills for two future assessment instruments: The Executive Skills Profile and The Learning Skills Profile.

Executive Skills Profile

The Executive Skills Profile (ESP) was designed to focus on management skills for populations in the fields of business, education, and health care (Kolb et al., 2001). This instrument assesses 12 skills that categorized into four domains (Boyatzis & Kolb, 1995). These domains include:

- The interpersonal skills domain consists of leadership, relationships, and helping and delegating skills (Boyatzis & Kolb, 1995).
- The informational skills domain consists of adapting, information gathering and information analysis skills (Boyatzis & Kolb, 1995).
- The analytical skills domain consists of planning, quantitative analysis, and technology management skills (Boyatzis & Kolb, 1995).
- The behavioral skills domain consists of setting/managing to goals, taking action and entrepreneurship skills (Boyatzis & Kolb, 1995).

The ESP has been used to provide personal and organizational feedback related to skills that could improve job and program development (Kolb et al., 2001). It also has allowed employers to share expectations and intent for growth on a personal level with employees (Kolb et al., 2001). Because the ESP is directly catered to management learning skills, it led to the creation of a more generalizable version, the Learning Skills Profile.

Learning Skills Profile

The Learning Skills Profile (LSP) assess the organization of an individual's knowledge at each domain of learning (Boyatzis & Kolb, 1997). This instrument aimed to align learning skills with ELT's typology of specialized knowledge (Kolb et al., 2001). The skill statements for the LSP were adapted from the ESP and were designed to describe general learning skills rather than a specific task (Boyatzis & Kolb, 1997). This instrument also assesses 12 skills that categorized into four domains (Boyatzis & Kolb, 1995). These domains aligned with the four mode of learning described in Kolb's (2015) ELT (Kolb et al., 2001). These domains include:

- The behavioral skills domain consists of setting/managing goals, taking action, and initiative skills and aligns with the active experimentation mode of learning (Boyatzis & Kolb, 1995).
- The interpersonal skills domain consists of leadership, relationship and help skills and aligns with the concrete experience mode of learning (Boyatzis & Kolb, 1997).
- The informational skills domain consists of sense-making, information gathering, and information analysis skills and aligns with the reflective observation mode of learning (Boyatzis & Kolb, 1997).

- The analytical skills domain consists of theory building, quantitative analysis, and technology skills and aligns with the abstract conceptualization mode of learning (Boyatzis & Kolb, 1997).

The LSP can be used as a self-evaluation tool or to provide 360-degree feedback and allows for personal development and career planning (Kolb, 2015). This assessment has been utilized in a variety of settings including graduate nursing programs and Master's of Business Administration programs to study the effectiveness of problems based learning, in health care as a team-building and faculty development exercise, and even to examine cross-cultural differences (Kolb et al., 2001). Boyatzis and Kolb (1995, 1997) acknowledge the vast opportunity of careers that could utilize a specialized learning skills profile.

Although education does not have its own learning skills profile, the stems of the ERP do outline skills associated with being an experiential educator (Kolb, 2015). Kolb and Kolb (2014) expressed that any educator who would like to improve the balance of their ERP can through intentional practice. Agricultural education relies heavily on student teaching to provide student teachers with the necessary practice to develop the skills to be experiential educators (Boone, & Boone, 2009).

Student Teaching Provides Opportunities for Practice and Skill Development

Student teachers need direct contact with the classroom to develop the skills necessary to succeed (Borne & Moss, 1990). Herbert Schumann (1969, p. 156) said, "the experiences obtained during student teaching are probably the most crucial activities involved in the development of prospective vocational agricultural teachers." Agricultural education relies heavily on the student teaching experience to shape and prepare student teachers for their own classrooms (Young & Edwards, 2006). This culminating placement "provides experiential learning during the preparation process" (Krysher et al., 2012).

Student Teaching in Agricultural Education

Student teaching has played a vital role in agricultural education since 1823 when the first agricultural education teacher preparation program was developed by Samuel Hall in Concord, Vermont (Byler & Byler, 1984). Historically, student teaching internships ranged from six to eight weeks in length during which the student teachers are paired with a current teacher, known as their cooperating teacher (Borne & Moss, 1990). Recently, many teacher education programs have transitioned to 12 to 15-week student teaching experiences (Retallick & Miller, 2010). During this time, student teachers are given the opportunity to practice the art of teaching as well as take on all other corresponding roles of an agricultural educator (Borne & Moss, 1990). Cooperating teachers provide guidance and feedback and serve as a mentor to their student teacher (Borne & Moss, 1990).

Teacher preparation programs vary in design and length of time (McLean & Camp, 2000; Robinson, Haynes, Krysher & Edwards, 2010; Torres & Ulmer, 2007). Regardless of their differences, all teacher preparation programs should contain four levels to their coursework (Whittington, 2005). Whittington's (2005) model for teacher preparation in agricultural education demonstrates the need for key experiences to develop the necessary knowledge, skills, and dispositions to be a successful agricultural educator (see Figure 9). The culminating experience, professional practice, provides for the most growth and guidance (Whittington, 2005).

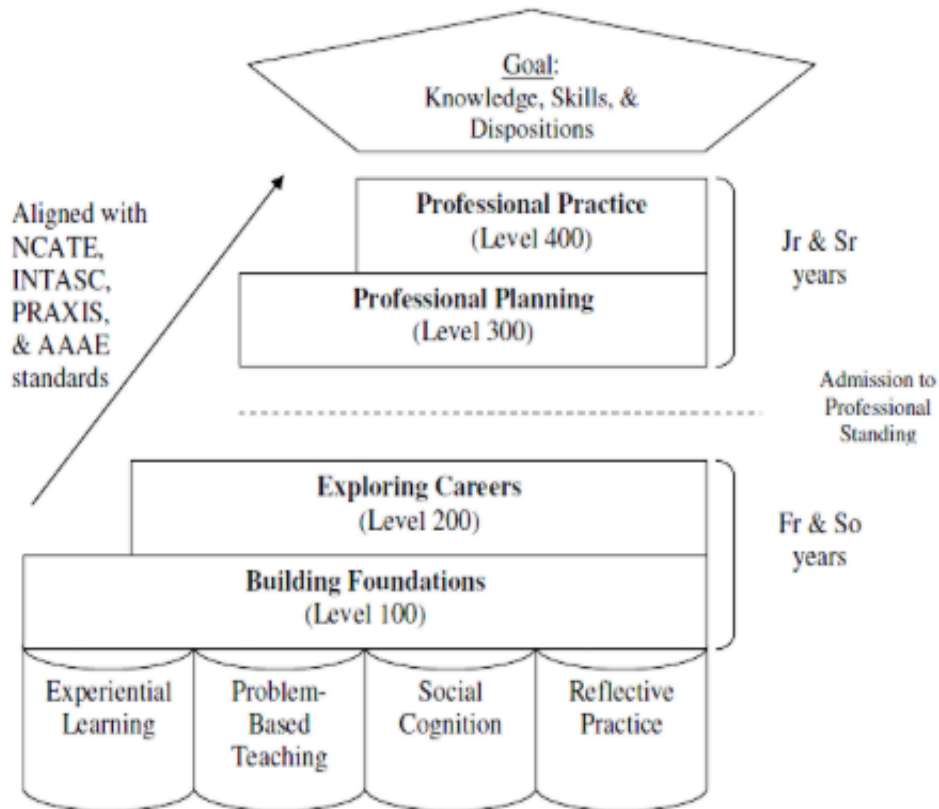


Figure 9. The model for teacher preparation in agricultural education (Whittington, 2005, p. 94).

Schuman (1969) outlined the three stages of student teaching: orientation, participation and maturation. During the orientation stage, student teachers become accustomed to the program and learn from their cooperating teacher through observation and support (Schuman, 1969). Student teachers in the participation stage are given more responsibilities such as teaching classes and taking on teams (Schuman, 1969). They should receive consistent and constant feedback from their cooperating teachers (Schuman, 1969). Finally, during the maturation phase, student teachers become more independent and experiment with new teaching and coaching techniques (Schuman, 1969). Feedback should be more vigorous and should focus on preparing the student to critique his or her own performance (Schuman, 1969).

Bandura's (1989) Social Cognitive Theory states that learners need models to demonstrate how to behave. Models improve self-efficacy and increase learners' application of knowledge. Cooperating teachers are relied on to be these models and provide mentorship and feedback throughout the student teaching experience (Norris, Larke & Briers, 1990). Garton and Cano (1996) found cooperating teachers to be the most significant impact on student teacher growth. Cooperating teachers believe they are providing high quality feedback (Norris et al, 1990). However, Edgars, Roberts, and Murphy (2011) found that cooperating teachers are lenient with standards and their feedback is effected by a positive relationship between the student teacher and their cooperating teacher, also known as the halo effect. They also found that most cooperating teachers do not receive training on expectations and feedback standards (Edgars, et al., 2011).

Student Teachings Effects on Efficacy and Morale

During student teaching, student teachers develop attitudes and practices that they will carry into their future classrooms (Schumann, 1969). Beliefs and attitudes are initial indicators of how successful they will be in the profession and are often measured as efficacy (Stripling, et al., 2008). Stripling, et al. (2008) found that teacher efficacy in utilizing educator skills related to (a) student engagement, (b) instructional strategies, and (c) classroom management tends to increase throughout the student teaching experience. Morale also was positively correlated with plans to teach agricultural education (Briers & Byler, 1979). Student teachers who experienced success during their field experience were more likely to pursue a career in the profession (Briers & Byler, 1979).

Skills Identified as Necessary for Student Teachers in Agricultural Education

Agricultural education utilizes the experiences during student teaching to teach experiential educator skills to student teachers (Krysher et al., 2012). A focus on knowledge and

skills development is essential during student teaching experiences (Blackburn et al. , 2015). Agricultural education instructors have identified a lack of agricultural and core content knowledge as a barrier to success in the classroom (Mundt & Connors, 1999). Mundt and Connors (1999) found that student teacher identified lack of agricultural industry experience as a barrier to their content knowledge success. Scales, Terry, and Torres (2009) found that agricultural education instructors may feel efficacious in their science and math content knowledge but when given an exam, they were not as knowledgeable as they reported. Lawver and Torres (2012) identified negative correlations between individuals who had extensive agricultural knowledge and intent to teach high school agricultural education. Student teaching should teach some elements of content knowledge and improve efficacy in this area (Rice & Kitchel, 2015).

Student teachers also identified pedagogy as an area that student teaching should and does improve (Smalley et al., 2015). Edwards & Briers (2001) found that student teachers identified teaching as the most important element of the circle-model of agricultural education. Both student teachers and their cooperating teachers rated elements associated with classroom and laboratory instructions as the most important to learn during the student teaching experience (Edwards & Briers, 2001). Young and Edwards (2006) found that student teachers' perceived importance of necessary pedagogical skills increased after their student teaching experience as compared to their preconceived importance. Smalley et al. (2015) reported that student teachers found skills related to preparing for instruction and teaching in the classroom/ laboratory to be the most important and applicable knowledge learned during student teaching. Student teachers also important identified areas tin which they felt less efficacious (Stripling et al., 2008). Student engagement and corresponding teaching methods were among these areas (Stripling et al., 2008). Cano and Garton (1994) found that student teachers experienced struggle with utilizing experiential approaches to education.

Student teaching needs to help provide student teachers with the knowledge and skills that set them up to be a successful and well- rounded educator (Lambert et al., 2014). “Teacher preparation programs should prepare teachers to serve as coaches, facilitators, subject experts and standard setters while teaching experientially in both formal and non-formal settings” (Baker et al., 2012). The effectiveness of student teaching in producing experiential educators needs to be evaluated (Cruickshank & Armaline, 1986).

Chapter Summary

Chapter II provided an overview of the problems associated with the lack of qualified teachers in the United States. Literature detailed evidence of the need for qualified teachers in agricultural education to fill vacancies with teachers who are experiential in nature. Kolb’s (2015) ELT and Kolb et al.’s (2014) ERP served as a framework for the study. The role of experiential education in agricultural education was evaluated and discussed. Skills as per Kolb’s (2015) ESP and LSP were defined and uses for development discussed. Finally, student teaching’s role in shaping perceptions and providing opportunities for growth was presented. Chapter III focuses on the methodology of this study as it seeks to achieve six research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.
2. Identify agricultural education student teachers’ perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers’ perceived competence of experiential educator skills prior to, during, and after student teaching.
4. Identify cooperating teachers’ authentic assessment of student teachers’ experiential educator skills.

5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

CHAPTER III

METHODOLOGY

This study used a non-experimental survey design to determine the impact of the student teaching experience on student teachers' experiential educator skill development. Chapter one provided an overview of the role experiential learning plays in agricultural education and teacher preparation, established a need for the study, described the purpose and the seven guiding research objectives, and defined terms utilized in the study. Chapter two reviewed literature related to the lack of qualified teachers, experiential learning in agricultural education, skill development, and the preparation of student teachers. Kolb's ELT (2015) and ERP (2014) were introduced as the frameworks for the study. Chapter three described the population of interest, participants, procedures, instrumentation, data collection, analysis, and validity. Methods were utilized to accomplish the following seven research objectives:

This study was guided by seven research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.
2. Identify agricultural education student teachers' perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers' perceived competence of experiential educator skills prior to, during, and after student teaching.

4. Identify cooperating teachers' authentic assessment of student teachers' experiential educator skills.
5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

Research Design

This study utilized a descriptive longitudinal panel survey design. A survey design “determines and reports the way things are; it involves collecting numerical data to test hypotheses or answer questions about the current status of the subject of study” (Gay, Mills & Airasian, 2009, p. 9). Descriptive research provides a depiction of the characteristics of the population (Johnson & Christensen, 2014). This method describes the variables that exist in a given situation (Johnson & Christensen, 2014). Longitudinal research allows the researcher to collect data at more than one point and make comparisons over time (Johnson & Christensen, 2014). The panel form of longitudinal design provides for the opportunity to sample the same individuals and ask the same questions at multiple points (Duncan, Juster, & Morgan, 1986). The objective of a panel study is to “understand why the panel members change over time” (Johnson & Christensen, 2014, p. 404). Panel studies are more powerful than trend studies because they establish proper time order and measure change within the same individuals (Duncan et al., 1986). They also are a “relatively powerful nonexperimental method for examining causality (Johnson & Christensen, 2014, p. 404).

This design provided a description of agricultural education student teachers in select universities in Oklahoma and Texas. The longitudinal design allowed for student teachers to rate their perceived importance and competence for each skill associated with the four roles of Kolb et al.'s (2014) ERP three times throughout their student teaching experience. Likewise, cooperating teachers provided an authentic assessment of their student teacher's ability for each ERP-related skill twice throughout the 12-15-week experience (Kolb & Kolb, 2014). By selecting a panel design, individual growth was tracked over time.

Population

The population of interest in this study was agricultural education student teachers at universities in Texas and Oklahoma who were engaged in their student teaching experience during the Spring of 2016 ($N = 164$). A convenience sample ($n = 91$) was taken from four representative universities that have agricultural education teacher preparation programs. For a participant's data to be useable, all administrations must have been completed by the student teacher and an authentic assessment from their cooperating teacher must have been submitted for the mid- and post-administrations. Seventy-seven students completed the pre-administration. The mid-administration was completed by fifty-five student teachers and fifty-two cooperating teachers. The post-administration was completed by forty-four student teachers and forty-five cooperating teachers. Due to attrition and incomplete response, thirty-six complete participants' responses, both student teacher and cooperating teacher were used in the study for a 39.6% response rate.

Convenience samples include "people who are available or volunteer or can be easily recruited and are willing to participate in the research study" (Johnson & Christensen, 2014, p. 263). This form of sampling is limiting because generalization is not possible due to unclear representation of the all members of the population (Castillo, 2009). Castillo (2009)

recommended describing the characteristics of the people participating in their research study when utilizing convenience sampling.

Description of Participates

Table 1-3 displays data associated with the sample, sex, age, teacher preparation programs, and years enrolled in high school agriculture classes.

Table 1

Sex of Agricultural Education Student Teacher Participants

Sex	<i>N</i>	%
Male	15	41.7
Female	21	58.3
Total	36	100

Table 2

Age of Agricultural Education Student Teacher Participants

Age	<i>N</i>	%
20	2	5.6
21	14	38.9
22	14	38.9
23	2	5.6
25	1	2.8
29	1	2.8
31	1	2.8
32	1	2.8
Total	36	100

Table 3

University Affiliation of Sample Participants and Length of Student Teaching Experiences

University	<i>N</i>	%	Length of Experience (a)
Oklahoma State University	9	25.0	15
Tarleton State University	13	36.1	12
Texas A&M University	9	25.0	14
Texas Tech University	5	13.9	16
Total	36	100	57

Note. (a) reported in weeks.

Instrumentation

In the first chapter of this document, the need for an instrument to evaluate the impact of the student teaching experience on student teachers as it pertains to balancing their preference and ability for each of the experiential learning teaching roles was established. Kolb et al.'s (2014) ERP was adapted to create an instrument to meet this need. Kolb et al.'s (2014) originally created the educator role profile self-assessment instrument, which was comprised of 96 items on a 7-point summated scale. Items included "individual teaching style ... beliefs about teaching and learning, goals for the educational process and instructional practices" (Kolb et al., 2014, p. 222). These statements were pilot tested and Cronbach's alphas were used to select 15 statements per role. The resulting statements had the following Cronbach's alphas: "coach (.84), facilitator (.83), subject expert (.82), and standard-setter/evaluator (.91)" (Kolb et al., 2014, p.223). Each Cronbach's alpha met the $\alpha = .70$ threshold indicating the reliability of each construct (Field, 2014).

Kolb et al (2014) then adapted this instrument to create the better-known EPR. The ERP was "formatted in a forced-choice comparison series of 30 items" (Kolb et al., 2014, p. 223). Each item pertains to one of the four educator roles. Items are paired based on their statement

type and each role was paired to every other role three times. Scores for the ERP are determined by adding the number of times that role was preferred resulting in a score between 0 and 15 for each role. Combination scores also were calculated to determine whether an educator is *Subject Focused* or *Learner Focused*, ([Expert + Evaluator] - [Coach + Facilitator]) and whether the educator is focused on *Action* or *Meaning*, ([Evaluator + Coach] - [Facilitator + Expert]) (Kolb et al., 2014).

Kolb et al., (2014) reported split-half reliability scores for each role: Coach (.74), Facilitator (.82), Expert (.59), and Evaluator (.56), and the four combination scores: Learner Focus (.88), Subject Focus (.70), Action Focus (.71) and Meaning Focus (.81). Split-half reliabilities are not a great measure of reliability and therefore the original Chronbach's alphas are of the most interest. Baker and Twenter (2016) also found weakness in the reliability of the forced distribution version of the instrument and reported the following Cronbach's alphas: Coach (.48), Facilitator (.57), Expert (.46), Evaluator (.32), Learner Focus (.56), Subject Focus (.56), Action Focus (.46) and Meaning Focus (.46). Due to the lack of reliability, and to meet the purpose of the study, the ERP was adapted to assess the skills associated with each roll and were measured on a 4-point summated scale using the Borich (1980) Needs Assessment structure. Reliabilities for this population will be reported in subsequent sections.

Adapting Kolb et al.'s (2014) Educator Role Profile to Assess Skills

As seen in Kolb's ESP (1995) and LSP (1997), skills can be assessed to identify areas of growth and areas that need improvement. The ERP (Kolb et al., 2014) was adapted for this study to measure skills related to the four roles of experiential teaching by rewording the 60 original items from the instrument into skills based statements (see Appendix G). Each skill was evaluated using the Borich (1980) Needs Assessment structure. Borich (1980) described the needs assessment model as "a self-evaluative procedure which relies on teachers' judgements

about their own performance” (p. 42). Needs assessments measure competencies, or skills, related to being effective educators (Borich, 1980). This model assumes teachers can judge their own performance objectively to facilitate growth during training (Borich, 1980). Borich’s (1980) model allows for teacher training program evaluation and facilitates discussion on in-service related needs. This structure has been previously adapted for use in assessing the employability skills of agricultural college graduates (Radhaskrishna & Bruening, 1994; Robinson, Garton and Vaughn, 2007) but has yet to focus on teacher preparation in agricultural education. The needs assessment in this study used a two-column weighted 4-point summated scale (see Figure 10).

	Importance				Competence			
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I use personal stories and experiences to help learners understand the meaning of a concept	●	●	●	●	●	●	●	●

Figure 10. Student Teacher Questionnaire Structure

Each student teachers’ perception of how important each skill was measured on a scale of one to four where 1 indicated the skill had no importance, 2 indicated minor importance, 3 indicated moderate importance and 4 indicated the skill had major importance. Each student teacher’s perceptions of their competence of the skills also was measured. A response of 1 indicated that they were not competent in the skill, 2 indicated minor competence, three indicated moderate competence and a response of four indicated they were very competent in that skill. To provide an authentic assessment, these same skills were assessed by each student teacher’s cooperating teacher on a separate questionnaire. Each cooperating teacher used a single column weighted 4-point summated scale to measure each student teachers’ competence of the skills (see

Figure 11). A score of 1 indicated no competence, a 2 indicated minor competence, a 3 indicated moderate competence and a 4 indicated highly proficient.



Figure 11. Cooperating Teacher Questionnaire Structure

As discussed previously, the summated scaled items performed as predicted by Kolb (2014) and were well above the .70 threshold (Field, 2014). Adopting the Borich (1980) Needs Assessment model improved reliability, in comparison to the forced distribution split-half reliabilities (Kolb et al, 2014), in all three distributions (see Table 4).

Table 4
Cronbach Alphas of Adapted ERP Questionnaire

	Pre-Administration	Mid-Administration	Post-Administration
Importance			
Coach	.930	.920	.949
Facilitator	.928	.920	.941
Expert	.932	.898	.919
Evaluator	.917	.889	.786
Competence			
Coach	.934	.923	.909
Facilitator	.932	.919	.909
Expert	.901	.835	.879
Evaluator	.885	.886	.891
Authentic Assessment			

	Pre-Administration	Mid-Administration	Post-Administration
Coach	---	.939	.946
Facilitator	---	.927	.946
Expert	---	.941	.954
Evaluator	---	.938	.958

Questionnaires also included demographic questions and items that measured student teachers' previous experience in areas related to agricultural education. These items were based on items included on an instrument by Borne and Moss (1990). Demographic data were structured in an open-ended format and as per Dillman et al. (2014). Items included prompting to elicit useable responses. Items measuring previous experience were closed-ended and provided clear weighted answer choices as recommended by Dillman et al. (2014).

Procedures and Data Collection

Longitudinal research requires consistent and thorough administration of instrumentation to engage each participant in every administration (Johnson & Christensen, 2014). To accomplish this task, Dillman, et al.'s (2014) survey design method was used. The procedures employed in this study were approved by the Oklahoma State University Internal Review Board (IRB # AG1560) and all associated documents are included in appendices A through G. Participants were recruited through email by both the researcher and their university supervisors. Consent was attained with a preface to the online questionnaire before the participant could respond to items on the questionnaire. All contact with the participants followed IRB protocol.

Distribution and Sampling

Due to the fact that each institution included in this study started and ended their student teaching experiences at different times, the administrations of the questionnaires occurred during

their first three weeks (pre-administration), midway through their experience (mid-administration) and at the completion of their experience (post-administration). Questionnaires were disseminated via Qualtrics and participants were given 21 days to complete each instrument. Reminders were sent out according to Dillman, et al.'s (2014) with bi-weekly reminders during the first two weeks and a reminder every other day for the last week.

To obtain an authentic assessment score for each student teacher, an additional questionnaire was sent to their corresponding cooperating teachers. Cooperating teachers received their questionnaires via Qualtrics and in conjunction with their student teachers' mid-administration and post-administration. A pre-administration questionnaire was not administered to the cooperating teachers because authentic assessment requires observation over time (Darling-Hammond & Snyder, 2000). Therefore, since student teachers were new to their cooperating center, the cooperating teacher had no historical knowledge of them and thus were unable to provide any data in the pre-administration phase. Three weeks were provided for the completion of each questionnaire and reminders were also sent in concurrence with student teacher reminders.

Analysis of Data

Data were analyzed using Statistical Package for Social Sciences (SPSS©), version 21, for Macintosh computers. To reduce human error, data were imported from Qualtrics to SPSS©. Normality was checked through using histograms and P-P plots as advised by Field (2013) and all constructs for each administration were distributed normally.

The first research objective called for describing the population of student teachers. This was accomplished by using the descriptive statistic function to analyze frequencies. Demographic data included sex, age, university affiliation, and number of years enrolled in high school agriculture classes. Frequencies also were calculated for the level of involvement in the following

activities related to relevant experiences: agricultural background, FFA contests, FFA officer positions, SAE projects, exhibiting livestock, high school agricultural classes, FFA conventions, FFA conferences/camps, Collegiate FFA, collegiate judging teams, collegiate agricultural leadership positions, and collegiate agricultural clubs. As suggested by Field (2013), frequencies were reported by response and included the number of participants in each response category and the percentage of the sample composed by that category.

The second, third and fourth research objectives were addressed by calculating an overall sample mean for all individual skill statements under each form of feedback per distribution. This analysis was completed by using the descriptive statistic function to calculate skill means per distribution, as suggested by Field (2013). Skills were computed and reported in constructs. An overall construct mean was provided for all forms of feedback. Standard deviations also were reported to account for variance in the model, as per Field's (2013) recommendation.

The fifth, sixth, and seventh research objectives were addressed using the compute variable function to calculate discrepancy scores for each individual on all skills during each administration of the instrument. Discrepancy scores were calculated to address performance discrepancy (research objective 5) and authentic discrepancy (research question 6). As suggested by Borich (1980), performance discrepancy scores were calculated by subtracting perceived importance from perceived competence. Authentic discrepancy scores were calculated by subtracting perceived importance scores from cooperating teacher's authentic assessment score. Finally, a mean weighted discrepancy score (MWDS) for both the performance and authentic discrepancy scores were calculated by dividing the sum of all discrepancy scores for each skill by the number of responses. These scores were graphed using a spider graph to provide a visual of growth over time and allow for comparisons of discrepancies between importance, competence and authentic assessment. Kolb (2015) uses spider graphs with the Learning Skills Profile to depict differences between job demands and learning skills (see Figure 12). The needs assessment

structure of research objective seven required assigning a rank for each skill during each administration and arranging the skills based in order on need. A grand weighted mean discrepancy score was calculated for each needs assessment by utilizing the descriptive statistic function.

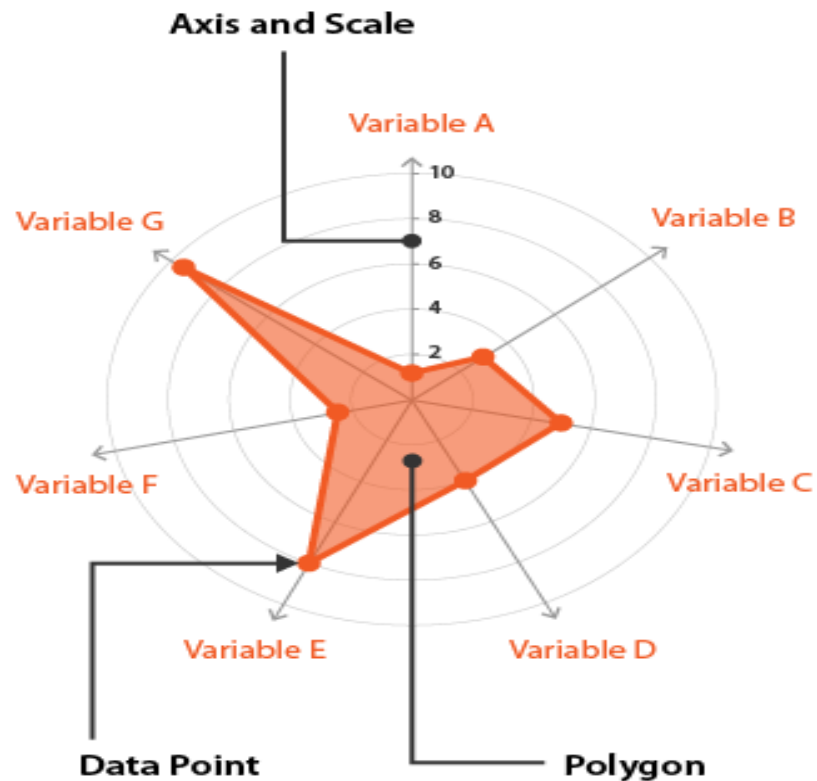


Figure 12. Example of Spider Graph. Reprinted from *Data Visualization Catalogue*, Retrieved from: http://www.datavizcatalogue.com/methods/radar_chart.html.

Validity

Longitudinal panel research naturally has several threats to validity that need to be addressed. One threat to validity in this design is the change in population versus the stagnate nature of the sample (Johnson & Christensen, 2014). Due to brevity of the study, the populations did not change drastically and therefore this threat was managed. Johnson and Christensen (2014) identified differential attrition as the largest threat to validity when using this design. Differential

attrition “occurs when participants do not drop out of a study randomly (i.e., when the people who drop out do not resemble the people who remain)” (Johnson & Christensen, 2014, p. 405). This issue also affects the internal validity of the study or the ability to establish solid evidence for cause and effect relationships (Johnson & Christensen, 2014). Attrition was addressed by monitoring the types of responders and ensuring that the sample continued to mirror the beginning sample of the study.

Content, criterion and construct validity, which in combination is often referred as unitary validity, should also be considered (Johnson & Christensen, 2014). To ensure the study was accomplishing its intended purpose and answered its set research objectives, unitary validity was addressed by a panel of experts. The panel reviewed the reworded skills statements, determined the methodology sound, and approved all procedures and analyze.

External validity can be threatened by nonresponse error. Nonresponse error in convenience sampling can occur when “less than 100% response rate is achieved” (Linder, Murphy & Briers, 2001, p. 45). Due to the 39.56% response rate in this study, control for this threat was necessary. During the initial administration, 85% of the sample ($n=91$) responded. Due to attrition, this number reduced to 39.56% after all administrations were completed. Respondents from the final sample were compared to respondents who did not complete all administrations. Demographic data between these two groups were compared, as suggested by Linder et al., 2001, and no significant differences were found.

Chapter Summary

The purpose of this study was to determine the impact of the student teaching experience on student teachers’ experiential educator skill development. The study was framed using six research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.
2. Identify agricultural education student teachers' perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers' perceived competence of experiential educator skills prior to, during, and after student teaching.
4. Identify cooperating teachers' authentic assessment of student teachers' experiential educator skills.
5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

This chapter provided the research design, described the population and sample, explained the instrumentation, discussed the procedures used to carry out the design, outlined the data analysis process and addressed possible threats to validity and the measures taken to control them. Chapter VI will present findings for each of the seven research objectives.

CHAPTER IV

FINDINGS

Agricultural education is rooted in experiential education (Baker et al., 2012; Dewey, 1938; Knobloch, 2003; Millenbah & Millspaugh, 2003; Roberts, 2006; Svinicki & Dixon, 1987). As such there is a need for teacher preparation programs to prepare educators to fulfill this call in their classrooms (Baker & Twenter, 2016). The purpose of this study was to determine if student teaching increases a student teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles. These variables were measured using a questionnaire formatted in a Borich (1980) needs assessment design. This questionnaire utilized the skills outlined in the Educator Role Profile (Kolb et al., 2015). Questionnaires were administered to the student teachers at the beginning of the experience (pre-administration), midway through their experience (mid-administration) and at the completion of their experience (post-administration). Authentic assessment was provided by cooperating teachers and were measured via a similar questionnaire that was distributed midway through and at the conclusion of their student teachers' experience. The study was framed by seven research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.

2. Identify agricultural education student teachers' perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers' perceived competence of experiential educator skills prior to, during, and after student teaching.
4. Identify cooperating teachers' authentic assessment of student teachers' experiential educator skills.
5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

Chapter I provided an overview of literature, described the background of the study, addressed the problem, and justified a need for the study. The purpose of the study, statement of the research objectives, definition of terms, an explanation of limitations and assumptions were also discussed. Chapter II reviewed literature related to the lack of qualified teachers, experiential learning in agricultural education, skill development, and the preparation of student teachers. Kolb's ELT (2015) and ERP (2014) were introduced as the frameworks for the study. Chapter III provided the research design, described the population and sample, explained the instrumentation, examined the procedures used to carry out the design, summarized the data analysis process and addressed possible threats to validity and the measures taken to control them.

Findings

Findings are presented by research question for each administration for the instrument. A summary of findings can be found at the conclusion of chapter four.

Research Objective One

Research objective one focused on describing previous related experiences that student teachers had going into their student teaching experiences. Field (2013) stated that nominal data can only be utilized if reported in the form of frequencies. The frequency of the number of years the sample of student teachers were enrolled in high school agriculture classes can be found in Table 5. A majority of the population were enrolled in four years of high school agricultural classes, $f=27$, 72.2%.

Table 5

Number of Years Sample Participants Were Enrolled in High School Agriculture Classes

Years	<i>f</i>	%
0	1	2.8
1	1	2.8
2	1	2.8
3	3	8.3
4	27	72.2
5	3	2.8
Total	36	100

Student teachers also reported their agricultural background and is presented in Table 6. Most of the sample reported that their “Family farms but it’s not the main source of income”, $f=11$, 30.6%, and “Family understands but not actively involved”, $f=16$, 44.4%.

Table 6

Student Teacher’s Agricultural Background

Agricultural Background	<i>f</i>	%
Grew up on a family farm	6	16.7
Family farms but it’s not the main source of income	11	30.6
Family understands agriculture but not actively involved	16	44.4
No agricultural background	3	8.3
Overall	36	100

Finally, student teachers were also asked to rate their involvement in a variety of experiences related to the classroom, SAEs and FFA. These frequencies are reported in Table 7. Student teachers were heavily involved in FFA officer positions ($n= 26$), SAE projects ($n= 32$) and exhibiting livestock ($n= 20$). Sample participants were least likely to be involved in Collegiate FFA ($n= 16$), Collegiate Judging ($n= 28$) and Collegiate Agricultural Leadership Positions ($n= 23$).

Table 7
Student Teacher's Related Involvement

Activity	<i>f</i>	%
FFA Contests		
Not involved	4	11.1
Moderate involvement	7	19.4
Heavily involved	25	69.4
FFA Officer Positions		
Not involved	4	11.1
Moderate involvement	6	16.7
Heavily involved	26	72.2
SAE Projects		
Not involved	1	2.8
Moderate involvement	3	8.3
Heavily involved	32	88.9
Exhibiting Livestock		
Not involved	1	2.8
Moderate involvement	5	13.9
Heavily involved	30	83.3
FFA Conventions		
Not involved	4	11.1
Moderate involvement	8	22.2
Heavily involved	24	66.7
FFA Conferences/ Camps		
Not involved	8	22.2
Moderate involvement	9	25.0
Heavily involved	19	52.8
Collegiate FFA		
Not involved	16	44.4
Moderate involvement	13	36.1
Heavily involved	7	19.4
Collegiate Judging		
Not involved	28	77.7
Moderate involvement	6	16.7
Heavily involved	2	5.6

Activity	<i>f</i>	%
Collegiate Agricultural Clubs		
Not involved	10	27.8
Moderate involvement	17	47.2
Heavily involved	9	25.0
Collegiate Agricultural Leadership Positions		
Not involved	23	63.9
Moderate involvement	9	25.0
Heavily involved	4	11.1

All frequencies contain 100 percent of the sample (n=36).

Research Objective Two

Research objective two aimed to describe student teachers' importance for experiential educating skills before, during and after their student teaching experiences. Reported means for perceived importance are reported in *Table 8*.

Student teachers identified several skills as the most important at the beginning of their student teaching experience. The skills with the largest importance means for each role are as follows: coaching role, "help learners apply what they have learned" ($M= 2.75, SD= 0.50$); facilitator role, "design an educational program around the learner's interests" ($M= 2.64, SD= 0.59$); expert role, "question learners about their understanding of a concept" ($M= 2.61, SD= 0.55$); and evaluator role, "establish standards and criteria for student performance" ($M= 2.61, SD= 0.60$) and "prepare learners for jobs and careers" ($M= 2.61, SD= 0.65$). The skills identified as the least important for each role were as follows: coaching role, "Use role play and simulation" ($M= 2.14, SD= 0.72$); facilitator role, "help learners develop a concern about social issues" ($M= 2.28, SD= 0.70$); expert role, "encourage learners to read the literature about a subject critically" ($M= 1.89, SD= 0.67$); and evaluator role, "use objective tests to evaluate" ($M= 2.17, SD= 0.75$).

Table 8

Reported Importance for All Educator Roles in the Pre-, Mid- and Post- Administrations

Skill	<u>Pre-Administration</u>		<u>Mid- Administration</u>		<u>Post-Administration</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Coach						
Deliver learning in real life context	2.72	0.51	2.56	0.65	2.67	0.54
Emphasize application in real world	2.64	0.59	2.64	0.59	2.75	0.50
Help learners achieve personal goals	2.69	0.47	2.50	0.61	2.64	0.59
Use role play and simulations	2.14	0.72	2.14	0.72	2.25	0.77
Use field projects	2.58	0.60	2.47	0.56	2.61	0.55
Provide opportunities for practice and feedback	2.67	0.54	2.56	0.61	2.67	0.54
Develop ability to apply learning	2.56	0.65	2.50	0.66	2.64	0.54
Develop ability to manage time	2.50	0.61	2.39	0.65	2.42	0.69
Develop learner's skill in planning and organizing	2.42	0.65	2.44	0.65	2.61	0.55
Help learners apply what they have learned	2.75	0.50	2.64	0.54	2.69	0.53
Design educational programs that focus on practice and application	2.42	0.69	2.47	0.65	2.67	0.54
Take a coaching role with learners	2.39	0.77	2.50	0.66	2.61	0.55
Provide opportunities for "hands-on" learning	2.67	0.59	2.67	0.54	2.81	0.41
Coach learners individually to help them achieve their goals	2.47	0.61	2.58	0.61	2.69	0.47
Encourage learners to take risks	2.39	0.69	2.36	0.68	2.56	0.61
Average Coaching Skill Score	2.53	0.61	2.49	0.63	2.62	0.56
Facilitator						
Use personal stories and experiences	2.44	0.56	2.58	0.50	2.64	0.54
Encourage conversation among learners	2.58	0.55	2.42	0.69	2.61	0.55
Aim for learners to develop a lifelong love of learning	2.44	0.70	2.58	0.60	2.56	0.61
Develop learners' understanding of their values	2.50	0.51	2.47	0.56	2.53	0.56
Develop learners' ability to be creative	2.53	0.56	2.56	0.56	2.50	0.61
Develop learners' empathic understanding of others	2.44	0.61	2.19	0.71	2.44	0.61

Skill	<u>Pre-Administration</u>		<u>Mid- Administration</u>		<u>Post-Administration</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Facilitator						
Help learners develop a concern about social issues	2.28	0.70	2.39	0.60	2.44	0.65
Encourage learners to create alternative solutions	2.53	0.61	2.42	0.65	2.50	0.61
Develop learners' understanding of others' points of view	2.36	0.68	2.42	0.69	2.42	0.65
Encourage learners to pursue the development of their interests	2.58	0.60	2.61	0.49	2.75	0.50
Show learners that I am a caring person	2.58	0.60	2.69	0.53	2.58	0.60
Provide a safe space for learners	2.50	0.66	2.47	0.61	2.67	0.48
Design an educational program around the learner's interests	2.47	0.65	2.53	0.56	2.69	0.47
Encourage learners to come up with creative ideas	2.64	0.59	2.58	0.55	2.58	0.55
Use group discussion for learners to reflect	2.44	0.61	2.61	0.55	2.53	0.61
Average Facilitator Skill Score	2.49	0.61	2.50	0.59	2.56	0.57
Expert						
Communicate my subject matter expertise	2.39	0.77	2.36	0.64	2.56	0.56
Deliver concepts and theories through well organized lectures	2.03	0.74	2.22	0.64	2.19	0.53
Question learners about their understanding of a concept	2.61	0.55	2.61	0.60	2.64	0.59
Encourage learners to read the literature about a subject critically	1.89	0.67	2.03	0.65	2.11	0.71
Model by demonstration how to think about a topic	2.31	0.71	2.28	0.66	2.39	0.65
Take a subject matter expert role with learners	2.36	0.68	2.28	0.62	2.36	0.59
Develop learners' knowledge and expertise in my subject	2.33	0.72	2.39	0.65	2.50	0.51
Teach methods for critical analysis of ideas	2.33	0.63	2.31	0.62	2.42	0.69
Model by demonstration how an expert thinks about a topic	2.19	0.67	2.39	0.65	2.42	0.60
Demonstrate my subject matter knowledge	2.31	0.62	2.36	0.68	2.56	0.65
Design educational programs based on the key concepts	2.33	0.63	2.61	0.55	2.53	0.61
Encourage learners to adhere to rules and procedures	2.53	0.56	2.56	0.56	2.72	0.45
Am logical in my teaching design	2.44	0.65	2.56	0.61	2.64	0.54
Communicate with learners on an intellectual level	2.11	0.52	2.36	0.59	2.50	0.61
Design an educational program around the basic principles	2.44	0.61	2.31	0.62	2.58	0.55
Average Expert Skill Score	2.31	0.65	2.38	0.62	2.47	0.59

Skill	<u>Pre-Administration</u>		<u>Mid- Administration</u>		<u>Post-Administration</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Evaluator						
Create a challenging environment	2.50	0.56	2.56	0.61	2.67	0.54
Use objective tests to evaluate	2.17	0.78	2.36	0.59	2.75	0.50
Outline step-by-step procedures for solving problems	2.36	0.76	2.42	0.69	2.64	0.59
Develop learner's problem solving skills	2.56	0.56	2.50	0.56	2.25	0.77
Establish standards and criteria for student performance	2.61	0.60	2.69	0.53	2.61	0.55
Provide a focused environment to analyze ideas	2.33	0.63	2.25	0.60	2.67	0.54
Create a challenging environment for quality work	2.58	0.65	2.69	0.58	2.64	0.54
Advise learners about the performance requirements of their career	2.44	0.65	2.39	0.73	2.42	0.69
Develop learners' ability to evaluate costs and benefits	2.22	0.72	2.33	0.68	2.61	0.55
Develop learners' skill in using the required materials	2.50	0.65	2.69	0.53	2.69	0.53
Prepare learners for jobs and careers	2.61	0.65	2.61	0.60	2.67	0.69
Am an objective evaluator	2.36	0.73	2.36	0.76	2.61	0.55
Design an educational program that sets clear procedures	2.39	0.73	2.47	0.61	2.81	0.40
Set standards and evaluate	2.28	0.66	2.36	0.59	2.69	0.47
Focus on performance outcomes	2.19	0.71	2.14	0.68	2.56	0.61
Average Evaluator Skill Score	2.41	0.67	2.45	0.60	2.62	0.57

In the mid-administration, student teachers classified the following skills in each role as the most important: coaching role, “provide opportunities for ‘hands-on’ learning” ($M= 2.67$, $SD=0.54$); facilitator role, “show learners that I am caring person” ($M= 2.69$, $SD= 0.53$); expert role, “question learners about their understanding of a concept” ($M= 2.61$, $SD= 0.60$) and “design educational programs based on the key concepts” ($M= 2.61$, $SD= 0.55$); and the evaluator role, “establish standards and criteria for student performance” ($M= 2.69$, $SD= 0.53$), “create a challenging environment for quality work” ($M= 2.69$, $SD= 0.58$), and “develop learners’ skill in using required material” ($M= 2.69$, $SD= 0.53$). The skills identified as the least important for each role in the mid-administration were as follows: coaching role, “Use role play and simulation”, $M= 2.14$, $SD= 0.72$; facilitator role, “develop learners’ empathetic understanding of others” ($M= 2.19$, $SD= 0.71$); expert role, “encourage learners to read the literature about a subject critically” ($M= 2.03$, $SD= 0.65$); and evaluator role, “focus on performance outcomes” ($M= 2.14$, $SD= 0.68$).

Finally, during the post-administration, student teachers identified the following skills as the most important for each role: coaching role, “provide opportunities for ‘hands-on’ learning” ($M= 2.81$, $SD= 0.41$); facilitator role, “encourage learners to pursue the development of their interests” ($M= 2.75$, $SD= 0.50$); expert role, “encourage learners to adhere to rules and procedures” ($M= 2.72$, $SD= 0.45$); and evaluator role, “design an educational program that sets clear procedures” ($M= 2.81$, $SD= 0.40$). The skills identified as the least important for each role were: coaching role, “Use role play and simulation” ($M= 2.25$, $SD= 0.77$); facilitator role, “develop learners’ understanding of others’ point of view” ($M= 2.42$, $SD= 0.65$); expert role, “encourage learners to read the literature about a subject critically” ($M= 2.11$, $SD= 0.71$); and evaluator role, “develop learner’s problem solving skills” ($M= 2.25$, $SD= 0.77$).

Kolb (2015) utilized spider graphs to illustrate changes over time. *Figure 13* displays the mean importance scores for each of the experiential educator skills during the pre-, mid- and post-administrations. As displayed by the graph little change occurred between the the pre- and mid-administrations. The most change occurred between the mid- and post- administrations.

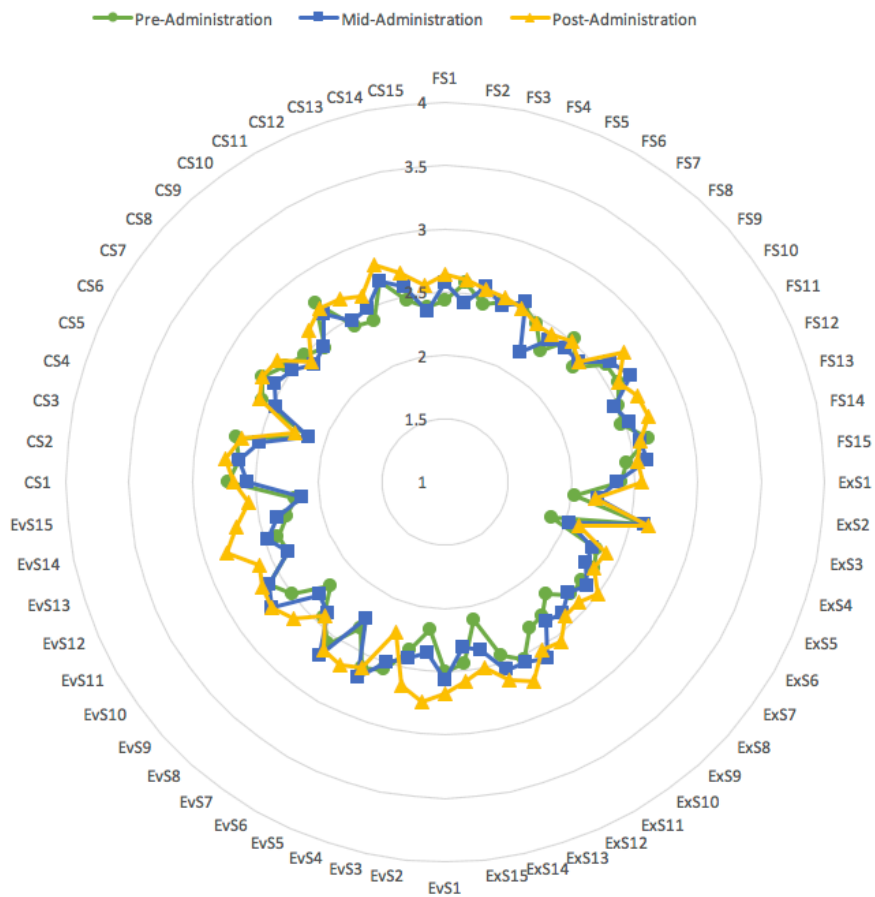


Figure 13. Importance Spider Graph.

Throughout data collection, the coaching role remained an important role; pre-administration ($M= 2.53, SD= 0.63$), mid-administration, ($M= 2.49, SD= 0.63$), and post-administration ($M= 2.62, SD= 0.56$). Importance in the facilitator role saw some change throughout the student teaching experience and was rated the second most important: pre-administration ($M= 2.49, SD= .61$), mid-administration ($M= 2.50, SD= 0.59$) and post-

administration ($M= 2.56, SD= 0.57$). The expert role was rated the least important consistently throughout each administration: pre-administration ($M= 2.31, SD= 0.65$), mid-administration ($M= 2.38, SD= 0.62$) and post-administration ($M= 2.47, SD= 0.59$). Finally, the evaluator role began as the third most important role and ended as the one of the most important roles: pre-administration ($M= 2.41, SD= 0.67$), mid-administration ($M= 2.45, SD= 0.62$) and post-administration ($M= 2.62, SD= 0.57$).

Research Objective Three

Research objective three focused on describing student teachers' perceived competence for experiential educating skills before, during and after their student teaching experience. Reported means for perceived competence are reported in *Table 9*. Student teachers identified several skills they believed they had the highest competence in at the beginning of their student teaching experience. The skills with the largest competence means for each role were as follows: coaching role, "help learners apply what they have learned" ($M= 2.22, SD= 0.72$); facilitator role, "show learners I am a caring person" ($M= 2.33, SD= 0.63$); expert role, "encourage learners to adhere to rules and procedures" ($M= 2.17, SD= 0.66$); and evaluator role, "establish standards and criteria for student performance" ($M= 2.19, SD= 0.71$). The skills identified as the least competent for each role were as follows: coaching role, "Use role play and simulation" ($M= 1.75, SD= 0.69$); facilitator role, "help learners develop a concern about social issues" ($M= 1.75, SD= 0.69$); expert role, "encourage learners to read the literature about a subject critically" ($M= 1.58, SD= 0.69$); and evaluator role, "advise learners about the performance requirements" ($M= 1.75, SD= 0.73$).

Table 9

Reported Competence for All Educator Roles in the Pre-, Mid- and Post- Administrations

Skill	<u>Pre-Administration</u>		<u>Mid- Administration</u>		<u>Post-Administration</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Coach						
Deliver learning in real life context	2.19	0.71	2.17	0.56	2.53	0.61
Emphasize application in real world	2.17	0.66	2.17	0.66	2.39	0.60
Help learners achieve personal goals	2.03	0.70	2.08	0.65	2.53	0.56
Use role play and simulations	1.75	0.69	1.86	0.80	2.19	0.62
Use field projects	2.03	0.74	1.94	0.67	2.36	0.68
Provide opportunities for practice and feedback	2.17	0.70	2.28	0.57	2.39	0.60
Develop ability to apply learning	1.94	0.63	2.17	0.61	2.39	0.55
Develop ability to manage time	2.06	0.63	2.08	0.55	2.33	0.54
Develop learner's skill in planning and organizing	2.08	0.65	1.97	0.65	2.33	0.54
Help learners apply what they have learned	2.22	0.72	2.28	0.62	2.56	0.56
Design educational programs that focus on practice and application	1.94	0.63	2.08	0.69	2.50	0.56
Take a coaching role with learners	2.00	0.68	2.22	0.64	2.53	0.56
Provide opportunities for "hands-on" learning	2.19	0.75	2.36	0.59	2.67	0.48
Coach learners individually to help them achieve their goals	2.03	0.70	2.25	0.65	2.56	0.56
Encourage learners to take risks	1.94	0.75	1.97	0.74	2.44	0.56
Average Coach Skill Score	2.05	0.69	2.13	0.64	2.45	0.57
Facilitator						
Use personal stories and experiences	2.14	0.64	2.22	0.59	2.53	0.56
Encourage conversation among learners	2.08	0.81	2.03	0.77	2.53	0.61
Aim for learners to develop a lifelong love of learning	1.81	0.62	1.89	0.71	2.22	0.68
Develop learners' understanding of their values	1.89	0.75	1.89	0.67	2.36	0.59
Develop learners' ability to be creative	2.00	0.63	2.19	0.75	2.42	0.65
Develop learners' empathic understanding of others	2.03	0.65	1.86	0.72	2.31	0.58

Skills	Pre-Administration		Mid-Administration		Post- Administration	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Facilitator						
Help learners develop a concern about social issues	1.75	0.69	1.78	0.54	2.33	0.64
Encourage learners to create alternative solutions	1.94	0.67	1.89	0.67	2.36	0.49
Develop learners' understanding of others' points of view	1.97	0.74	1.97	0.74	2.31	0.58
Encourage learners to pursue the development of their interests	2.06	0.75	2.14	0.64	2.47	0.56
Show learners that I am a caring person	2.33	0.63	2.25	0.60	2.56	0.61
Provide a safe space for learners	1.97	0.77	2.08	0.77	2.50	0.61
Design an educational program around the learner's interests	2.06	0.67	2.03	0.65	2.44	0.56
Encourage learners to come up with creative ideas	2.25	0.65	2.14	0.68	2.50	0.56
Use group discussion for learners to reflect	2.03	0.70	2.06	0.67	2.39	0.65
Average Facilitator Skill Score	2.02	0.69	2.03	0.68	2.42	0.59
Expert						
Communicate my subject matter expertise	1.81	0.47	1.97	0.61	2.22	0.59
Deliver concepts and theories through well organized lectures	1.83	0.66	1.94	0.58	2.11	0.52
Question learners about their understanding of a concept	2.11	0.75	2.22	0.54	2.36	0.54
Encourage learners to read the literature about a subject critically	1.58	0.69	1.72	0.74	2.08	0.65
Model by demonstration how to think about a topic	1.97	0.70	1.97	0.56	2.25	0.60
Take a subject matter expert role with learners	1.75	0.55	1.92	0.65	2.19	0.58
Develop learners' knowledge and expertise in my subject	2.00	0.72	2.03	0.45	2.31	0.62
Teach methods for critical analysis of ideas	1.72	0.62	1.86	0.72	2.19	0.62
Model by demonstration how an expert thinks about a topic	1.86	0.64	1.89	0.62	2.31	0.67
Demonstrate my subject matter knowledge	2.03	0.70	2.06	0.63	2.42	0.55
Design educational programs based on the key concepts	1.92	0.60	2.17	0.56	2.36	0.54
Encourage learners to adhere to rules and procedures	2.17	0.66	2.19	0.62	2.64	0.49
Am logical in my teaching design	2.11	0.67	2.31	0.53	2.61	0.49
Communicate with learners on an intellectual level	1.92	0.55	2.06	0.58	2.36	0.54
Design an educational program around the basic principles	2.14	0.64	2.19	0.53	2.44	0.56
Average Expert Skill Score	1.93	0.64	2.04	0.59	2.32	0.57

Skills	Pre-Administration		Mid-Administration		Post-Administration	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Evaluator						
Create a challenging environment	1.97	0.51	2.11	0.47	2.25	0.55
Use objective tests to evaluate	1.92	0.65	2.17	0.61	2.28	0.66
Outline step-by-step procedures for solving problems	1.94	0.75	2.11	0.62	2.19	0.58
Develop learner's problem solving skills	1.89	0.71	1.89	0.67	2.36	0.54
Establish standards and criteria for student performance	2.19	0.71	2.28	0.57	2.42	0.50
Provide a focused environment to analyze ideas	1.92	0.65	2.00	0.48	2.33	0.54
Create a challenging environment for quality work	1.89	0.58	2.19	0.62	2.50	0.61
Advise learners about the performance requirements of their career	1.75	0.73	1.81	0.53	2.25	0.60
Develop learners' ability to evaluate costs and benefits	1.78	0.76	1.86	0.68	2.31	0.62
Develop learners' skill in using the required materials	1.92	0.69	2.28	0.62	2.47	0.51
Prepare learners for jobs and careers	1.92	0.77	2.11	0.71	2.50	0.51
Am an objective evaluator	2.00	0.63	2.11	0.67	2.33	0.59
Design an educational program that sets clear procedures	2.11	0.62	2.08	0.65	2.56	0.56
Set standards and evaluate	1.92	0.60	2.06	0.48	2.33	0.59
Focus on performance outcomes	1.03	0.51	2.00	0.63	2.28	0.62
Average Evaluator Skill Score	1.94	0.67	2.07	0.60	2.36	0.57

In the mid-administration, student teachers indicated higher competency in the following skills in each role: coaching role, “provide opportunities for ‘hands-on’ learning” ($M= 2.36$, $SD=0.59$); facilitator role, “show learners that I am caring person” ($M= 2.25$, $SD= 0.60$); expert role, “am logical in my teaching design” ($M= 2.31$, $SD= 0.53$); and the evaluator role, “establish standards and criteria for student performance” ($M= 2.28$, $SD= 0.57$), and “develop learners’ skill in using required material” ($M= 2.28$, $SD= 0.62$). The skills identified as the least competent for each role in the mid-administration were: coaching role, “Use role play and simulation” ($M= 1.86$, $SD= 0.80$); facilitator role, “help learners develop a concern about social issues” ($M= 1.78$, $SD= 0.54$); expert role, “encourage learners to read the literature about a subject critically” ($M= 1.72$, $SD= 0.74$); and evaluator role, “advise learners about the performance requirements” ($M= 1.81$, $SD= 0.53$).

During the post-administration, student teachers identified the following skills as their skills they are most competent for each role: coaching role, “provide opportunities for ‘hands-on’ learning” ($M= 2.67$, $SD= 0.48$); facilitator role, “show learners that I am caring person” ($M= 2.56$, $SD= 0.61$); expert role, “encourage learners to adhere to rules and procedures” ($M= 2.64$, $SD= 0.49$); and evaluator role, “design an educational program that sets clear procedures” ($M= 2.56$, $SD= 0.56$). The skills identified as the least important for each role were: coaching role, “Use role play and simulation” ($M= 2.25$, $SD= 0.77$); facilitator role, “develop learners’ understanding of others’ point of view” ($M= 2.42$, $SD= 0.65$); expert role, “encourage learners to read the literature about a subject critically” ($M= 2.11$, $SD= 0.71$); and evaluator role, “develop learner’s problem solving skills” ($M= 2.25$, $SD= 0.77$).

Figure 14 displays the mean competence scores for each of the experiential educator skills during the pre-, mid- and post- administrations. As displayed by the graph little change occurred between the the pre- and mid- administrations. The most change occurred between the mid- and post- administrations.

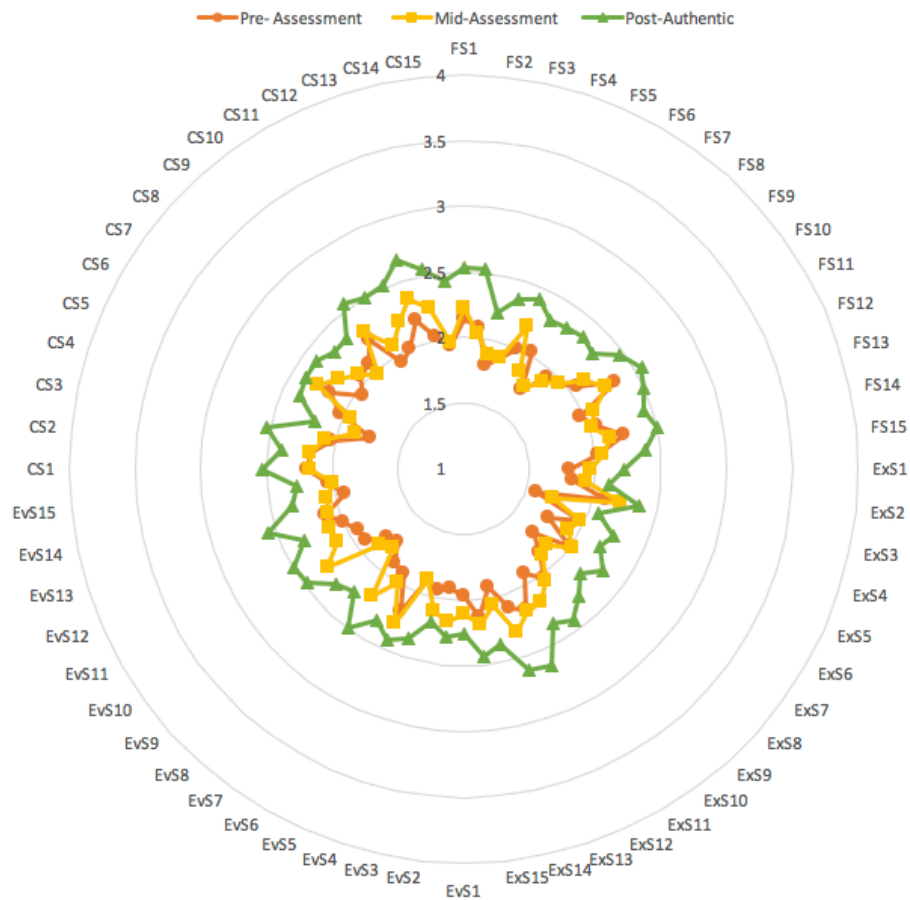


Figure 14. Competence Spider Graph.

Student teachers perceived the coaching role to be the role they are most competent at: pre-administration ($M= 2.05$, $SD= 0.69$); mid-administration ($M= 2.13$, $SD= 0.64$) and post-administration ($M= 2.45$, $SD= 0.57$). The facilitator role was rated second in perceived competence in comparison to the other roles; pre-administration ($M= 2.02$, $SD= 0.69$) mid-administration ($M= 2.03$, $SD= 0.68$) and post-administration ($M= 2.42$, $SD= 0.59$). The expert role was reported as one of the lowest roles throughout each administration: pre-administration ($M= 1.93$, $SD= 0.64$) mid-administration ($M= 2.04$, $SD= 0.59$) and post-administration ($M= 2.32$, $SD= 0.57$). Finally, the evaluator role was also seen as the third most competent role: pre-

administration ($M= 1.94, SD= 0.67$), mid-administration ($M= 2.07, SD= 0.60$) and post-administration ($M= 2.36, SD= 0.57$).

Research Objective Four

Research objective four aimed to describe cooperating teacher's authentic assessment for experiential educating skills during and after their student teaching experience. Reported means for perceived competence are reported in *Table 10*. Cooperating teachers identified several skills they believed their student teacher had the highest competence in middle of their student teaching experience. The skills with the largest authentic assessment means for each role were: the coaching role, "provide opportunities for 'hands-on' learning" ($M= 3.50, SD= 0.70$); the facilitator role, "encourage learners to come up with creative ideas" ($M= 3.50, SD= 0.61$); the expert role, "encourage learners to adhere to rules and procedures" ($M= 3.44, SD= 0.77$); and the evaluator role, "Am an objective evaluator" ($M= 3.39, SD= 0.60$). The skills identified as the least competent for each role were as follows: the coaching role, "help learners achieve personal goals" ($M= 3.06, SD= 0.72$), and "Use role play and simulation" ($M= 3.06, SD= 0.83$); the facilitator role, "help learners develop a concern about social issues" ($M= 2.75, SD= 0.65$); the expert role, "encourage learners to read the literature about a subject critically" ($M= 2.75, SD= 0.81$); and the evaluator role, "develop learners' ability to evaluate costs and benefits" ($M= 2.86, SD= 0.72$).

Table 10

Reported Authentic Assessment for All Educator Roles in the Mid- and Post- Administrations

Skill	<u>Mid- Administration</u> <u>Authentic Assessment</u>		<u>Post-Administration</u> <u>Authentic Assessment</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Coach				
Deliver learning in real life context	3.22	0.80	3.33	0.68
Emphasize application in real world	3.25	0.65	3.25	0.69
Help learners achieve personal goals	3.06	0.72	3.11	0.62
Use role play and simulations	3.06	0.83	2.94	0.86
Use field projects	3.17	0.74	3.14	0.72
Provide opportunities for practice and feedback	3.25	0.77	3.39	0.69
Develop ability to apply learning	3.17	0.78	3.08	0.69
Develop ability to manage time	3.08	0.69	2.97	0.74
Develop learner's skill in planning and organizing	3.19	0.71	2.94	0.72
Help learners apply what they have learned	3.22	0.72	3.25	0.65
Design educational programs that focus on practice and application	3.22	0.72	3.22	0.68
Take a coaching role with learners	3.31	0.86	3.36	0.72
Provide opportunities for "hands-on" learning	3.50	0.70	3.44	0.74
Coach learners individually to help them achieve their goals	3.17	0.81	3.17	0.74
Encourage learners to take risks	3.08	0.84	3.31	0.67
Average Coach Skill Score	3.20	0.76	3.19	0.71
Facilitator				
Use personal stories and experiences	2.97	0.77	2.97	0.70
Encourage conversation among learners	3.22	0.83	3.14	0.76
Aim for learners to develop a lifelong love of learning	2.97	0.81	3.22	0.64
Develop learners' understanding of their values	3.06	0.72	3.03	0.70
Develop learners' ability to be creative	3.19	0.67	3.14	0.72
Develop learners' empathic understanding of others	2.97	0.70	2.97	0.77

Skills	<u>Mid-Administration</u>		<u>Post-Administration</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Facilitator				
Help learners develop a concern about social issues	2.75	0.65	2.89	0.85
Encourage learners to create alternative solutions	2.83	0.81	3.03	0.61
Develop learners' understanding of others' points of view	2.97	0.74	3.03	0.56
Encourage learners to pursue the development of their interests	3.22	0.68	3.25	0.65
Show learners that I am a caring person	3.22	0.83	3.36	0.64
Provide a safe space for learners	3.14	0.83	3.22	0.83
Design an educational program around the learner's interests	3.19	0.75	3.19	0.71
Encourage learners to come up with creative ideas	3.50	0.61	3.42	0.69
Use group discussion for learners to reflect	3.14	0.87	3.22	0.76
Average Facilitator Skill Score	3.09	0.75	3.14	0.71
Expert				
Communicate my subject matter expertise	2.83	0.81	3.11	0.71
Deliver concepts and theories through well organized lectures	3.08	0.69	2.97	0.77
Question learners about their understanding of a concept	3.08	0.81	3.08	0.77
Encourage learners to read the literature about a subject critically	2.75	0.81	2.72	0.74
Model by demonstration how to think about a topic	3.19	0.82	3.33	0.63
Take a subject matter expert role with learners	3.03	0.74	3.17	0.81
Develop learners' knowledge and expertise in my subject	3.14	0.72	3.11	0.71
Teach methods for critical analysis of ideas	2.92	0.69	2.94	0.72
Model by demonstration how an expert thinks about a topic	2.92	0.77	2.94	0.79
Demonstrate my subject matter knowledge	3.33	0.72	3.28	0.74
Design educational programs based on the key concepts	3.22	0.72	3.11	0.71
Encourage learners to adhere to rules and procedures	3.44	0.77	3.47	0.70
Am logical in my teaching design	3.42	0.69	3.28	0.70
Communicate with learners on an intellectual level	3.19	0.82	3.14	0.76
Design an educational program around the basic principles	3.31	0.71	3.19	0.79
Average Expert Skill Score	3.14	0.75	3.12	0.74

Skills	<u>Mid-Administration</u>		<u>Post-Administration</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Evaluator				
Create a challenging environment	3.11	0.67	3.19	0.62
Use objective tests to evaluate	3.08	0.77	2.97	0.77
Outline step-by-step procedures for solving problems	3.00	0.72	2.94	0.67
Develop learner's problem solving skills	3.14	0.68	3.17	0.74
Establish standards and criteria for student performance	3.36	0.76	3.11	0.67
Provide a focused environment to analyze ideas	3.00	0.79	2.94	0.67
Create a challenging environment for quality work	3.14	0.64	3.25	0.69
Advise learners about the performance requirements of their career	3.00	0.72	3.11	0.79
Develop learners' ability to evaluate costs and benefits	2.86	0.72	2.97	0.74
Develop learners' skill in using the required materials	3.25	0.69	3.17	0.66
Prepare learners for jobs and careers	3.06	0.75	3.19	0.75
Am an objective evaluator	3.39	0.60	3.33	0.72
Design an educational program that sets clear procedures	3.06	0.83	2.94	0.72
Set standards and evaluate	3.06	0.75	3.11	0.75
Focus on performance outcomes	3.08	0.77	3.22	0.80
Average Evaluator Skill Score	3.11	0.76	3.11	0.72

During the post-administration, the following skills were had the highest authentic assessment scores for each role: the coaching role, “provide opportunities for ‘hands-on’ learning” ($M= 3.50, SD= 0.70$); the facilitator role, “encourage learners to come up with creative ideas” ($M= 3.42, SD= 0.69$); expert role, “encourage learners to adhere to rules and procedures” ($M= 3.47, SD= 0.70$); and evaluator role, “Am an objective evaluator” ($M= 3.33, SD= 0.72$). The skills identified as the least important for each role were: coaching role, “Use role play and simulation” ($M= 2.94, SD= 0.86$) and “” ($M= 2.94, SD= 0.72$); the facilitator role, “help learners develop a concern about social issues” ($M= 2.89, SD= 0.85$); the expert role, “encourage learners to read the literature about a subject critically” ($M= 2.72, SD= 0.74$); and the evaluator role, “outline step-by-step procedures for solving problems” ($M= 2.94, SD= 0.67$) and “provide a focused environment to analyze ideas” ($M= 2.94, SD= 0.67$).

Research objective four sought to describe cooperating teachers’ authentic assessment of student teachers’ competence for experiential educating skills before, during and after their student teaching experience. Figure 15 displays the changes in importance over these three administration.

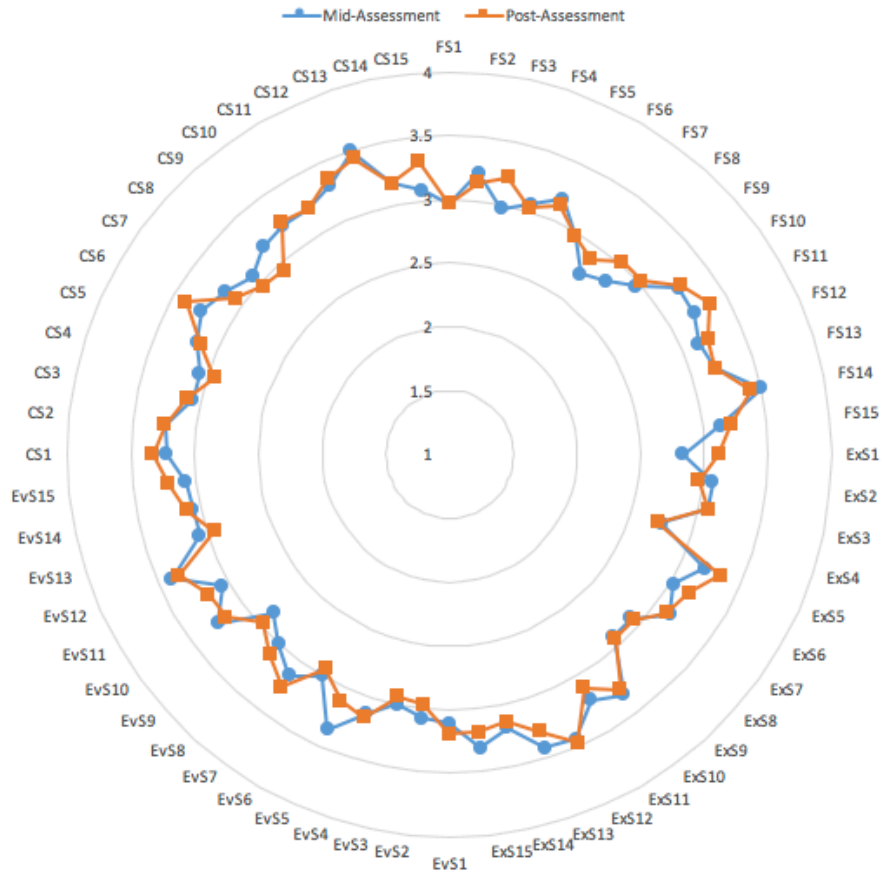


Figure 15. Authentic Assessment Spider Graph.

Cooperating teachers perceived their student teachers' competence in the coaching role to their most competent; mid-administration ($M= 3.20, SD= 0.76$) and post-administration ($M= 3.19, SD= 0.71$). Authentic assessment in the facilitator role rated was average in comparison to most of the other roles ; mid-administration ($M= 3.09, SD= 0.75$) and post-administration ($M= 3.14, SD= 0.71$). The expert role was also reported as the the second more competent role in both authentic assessments; mid-administration ($M= 3.14, SD= 0.75$) and post-administration ($M= 3.12, SD= 0.74$). Finally, the evaluator role was seen as a role in which student teachers'

competence was low in comparison to the other roles: mid-administration ($M= 3.11$, $SD= 0.72$) and post-administration ($M= 3.11$, $SD= 0.74$).

Research Objective Five

Research objective five focused on describing the discrepancies between student teachers' perceived importance and competence for experiential educating skills before, during and after their student teaching experience, also known as the performance discrepancies. All performance discrepancies are displayed on *Table 11*. Performance discrepancy scores were calculated by subtracting perceived importance from perceived competence for each role. A positive discrepancy represents a larger importance score than the competence. Larger discrepancy scores indicated more opportunities for growth. The skills with the largest performance discrepancies for each role were as follows: the coaching role, "help learners achieve personal goals" ($\Delta= 0.67$); the facilitator role, "aim for learners to develop a lifelong love of learning" ($\Delta= 0.63$); the expert role, "take a subject matter expert role with learners" ($\Delta= 0.61$) and "teach methods for critical analysis of ideas" ($\Delta= 0.61$); and the evaluator role, "create a challenging environment for quality work" ($\Delta= 0.69$), "advise learners about the performance requirements of their career" ($\Delta= 0.69$) and "prepare learners for jobs and careers" ($\Delta= 0.69$). The skills with the smallest performance discrepancies for each role were: the coaching role, "Develop learners' skill in planning and organizing" ($\Delta= 0.33$); facilitator role, "use personal stories and experiences" ($\Delta= 0.30$); the expert role, "communicate with learners on an intellectual level" ($\Delta= 0.19$); and the evaluator role, "focus on performance outcomes" ($\Delta= 0.17$).

Table 11

Performance Discrepancy Scores for All Educator Roles in the Pre-, Mid- and Post- Administrations

Skill	<u>Pre-Administration</u> Δ	<u>Mid-Administration</u> Δ	<u>Post-Administration</u> Δ
Coach			
Deliver learning in real life context	0.53	0.39	0.14
Emphasize application in real world	0.47	0.47	0.36
Help learners achieve personal goals	0.67	0.42	0.11
Use role play and simulations	0.39	0.28	0.06
Use field projects	0.56	0.53	0.25
Provide opportunities for practice and feedback	0.50	0.28	0.28
Develop ability to apply learning	0.61	0.33	0.25
Develop ability to manage time	0.44	0.31	0.08
Develop learner's skill in planning and organizing	0.33	0.47	0.28
Help learners apply what they have learned	0.53	0.36	0.14
Design educational programs that focus on practice and application	0.47	0.39	0.17
Take a coaching role with learners	0.39	0.28	0.08
Provide opportunities for "hands-on" learning	0.47	0.31	0.14
Coach learners individually to help them achieve their goals	0.44	0.33	0.14
Encourage learners to take risks	0.44	0.39	0.11
Average Coach Skill Score	0.48	0.37	0.17
Facilitator			
Use personal stories and experiences	0.30	0.36	0.11
Encourage conversation among learners	0.50	0.39	0.09
Aim for learners to develop a lifelong love of learning	0.63	0.69	0.33
Develop learners' understanding of their values	0.61	0.58	0.17
Develop learners' ability to be creative	0.53	0.36	0.08
Develop learners' empathic understanding of others	0.41	0.33	0.06

Skills	<u>Pre-Administration</u>	<u>Mid-Administration</u>	<u>Post-Administration</u>
	Δ	Δ	Δ
Facilitator			
Help learners develop a concern about social issues	0.53	0.61	0.11
Encourage learners to create alternative solutions	0.59	0.53	0.14
Develop learners' understanding of others' points of view	0.39	0.44	0.11
Encourage learners to pursue the development of their interests	0.52	0.47	0.28
Show learners that I am a caring person	0.42	0.44	0.03
Provide a safe space for learners	0.53	0.39	0.17
Design an educational program around the learner's interests	0.41	0.50	0.25
Encourage learners to come up with creative ideas	0.39	0.44	0.08
Use group discussion for learners to reflect	0.41	0.56	0.14
Average Facilitator Skill Score	0.48	0.47	0.14
Expert			
Communicate my subject matter expertise	0.58	0.39	0.34
Deliver concepts and theories through well organized lectures	0.20	0.28	0.08
Question learners about their understanding of a concept	0.50	0.39	0.28
Encourage learners to read the literature about a subject critically	0.31	0.31	0.03
Model by demonstration how to think about a topic	0.34	0.31	0.14
Take a subject matter expert role with learners	0.61	0.36	0.17
Develop learners' knowledge and expertise in my subject	0.33	0.36	0.19
Teach methods for critical analysis of ideas	0.61	0.44	0.22
Model by demonstration how an expert thinks about a topic	0.33	0.50	0.11
Demonstrate my subject matter knowledge	0.28	0.31	0.14
Design educational programs based on the key concepts	0.41	0.44	0.17
Encourage learners to adhere to rules and procedures	0.36	0.36	0.08
Am logical in my teaching design	0.33	0.25	0.03
Communicate with learners on an intellectual level	0.19	0.31	0.14
Design an educational program around the basic principles	0.30	0.11	0.14
Average Expert Skill Score	0.38	0.34	0.15

Skills	<u>Pre-Administration</u> Δ	<u>Mid-Administration</u> Δ	<u>Post-Administration</u> Δ
Evaluator			
Create a challenging environment	0.53	0.44	0.42
Use objective tests to evaluate	0.25	0.19	0.47
Outline step-by-step procedures for solving problems	0.42	0.31	0.45
Develop learner's problem solving skills	0.67	0.61	-0.11
Establish standards and criteria for student performance	0.42	0.42	0.19
Provide a focused environment to analyze ideas	0.42	0.25	0.34
Create a challenging environment for quality work	0.69	0.50	0.14
Advise learners about the performance requirements of their career	0.69	0.58	0.17
Develop learners' ability to evaluate costs and benefits	0.44	0.47	0.30
Develop learners' skill in using the required materials	0.58	0.42	0.22
Prepare learners for jobs and careers	0.69	0.50	0.17
Am an objective evaluator	0.36	0.25	0.28
Design an educational program that sets clear procedures	0.28	0.39	0.25
Set standards and evaluate	0.36	0.31	0.36
Focus on performance outcomes	0.17	0.14	0.28
Average Evaluator Skill Score	0.46	0.39	0.20

In the mid-administration, the following skills in each role had the largest performance discrepancies: the coaching role, “use field projects” ($\Delta = 0.53$); the facilitator role, “aim for learners to develop a lifelong love of learning” ($\Delta = 0.53$); the expert role, “model by demonstration how an expert thinks about a topic” ($\Delta = 0.50$); and the evaluator role, “develop learner’s problem solving skills” ($\Delta = 0.61$). The smallest performance discrepancies in the mid-administration were: the coaching role, “Use role play and simulation” ($\Delta = 0.28$) and “provide opportunities for practice and feedback” ($\Delta = 0.28$); the facilitator role, “develop learners’ empathetic understanding of others” ($\Delta = 0.33$); the expert role, “design an educational program around the basic principles” ($\Delta = 0.11$); and the evaluator role, “focus on performance outcomes” ($\Delta = 0.14$).

During the post-administration, the largest performance discrepancies were calculated for the following skills in each role: the coaching role, “emphasize application in real world” ($\Delta = 0.36$); the facilitator role, “aim for learners to develop a lifelong love of learning” ($\Delta = 0.33$); the expert role, “communicate my subject matter expertise” ($\Delta = 0.34$); and the evaluator role, “use objective tests to evaluate” ($\Delta = 0.47$). The skills with the smallest performance discrepancies for each role were: the coaching role, “Use role play and simulation” ($\Delta = 0.06$); the facilitator role, “show learners that I am a caring person” ($\Delta = 0.03$); the expert role, “encourage learners to read the literature about a subject critically” ($\Delta = 0.03$) and “am logical in my teaching design” ($\Delta = 0.03$); and the evaluator role, “develop learner’s problem solving skills” ($\Delta = -0.11$).

Overall, performance discrepancies in the coaching role were average: pre-administration ($\Delta = 0.48$), mid-administration ($\Delta = 0.37$) and post-administration ($\Delta = 0.17$). The facilitator role initially had larger discrepancies in comparison to the other roles: pre-administration ($\Delta = 0.48$), mid-administration ($\Delta = 0.47$) but during the post-administration had the lowest discrepancies of any role, ($\Delta = 0.14$). The expert role was reported as one of the lowest roles throughout each administration: pre-administration ($\Delta = 0.38$); mid-administration ($\Delta = 0.34$) and post-

administration ($\Delta = 0.15$). Finally, the evaluator role reported average to higher discrepancies in comparison to the other roles: pre-administration ($\Delta = 0.46$); mid-administration ($\Delta = 0.39$) and post-administration ($\Delta = 0.20$).

Research Objective Six

Research objective six sought to describe authentic discrepancies between student teachers perceived competence and their cooperating teachers' authentic assessment for experiential educating skills during and after their student teaching experience. All authentic discrepancy scores can be found on *Table 12*. In the mid-administration, the following skills in each role had the largest discrepancies: the coaching role, "use field projects" ($\Delta = -1.22$) and "develop learner's skill in planning and organizing" ($\Delta = -1.22$); the facilitator role, "encourage learners to come up with creative ideas" ($\Delta = -1.36$); the expert role, "demonstrate my subject matter expertise" ($\Delta = -1.28$); and the evaluator role, "am an objective evaluator" ($\Delta = -1.28$). The smallest discrepancies in the mid-administration were: the coaching role, "help learners apply what they have learned" ($\Delta = -0.94$); the facilitator role, "use personal stories and experiences" ($\Delta = -0.75$); the expert role, "communicate my subject matter knowledge" ($\Delta = -0.86$); and the evaluator role, "outline step-by-step procedures for solving problems" ($\Delta = -0.89$).

Table 12

Authentic Discrepancy Scores for All Educator Roles in the Pre-, Mid- and Post- Administrations

Skill	<u>Mid-Administration</u> Δ	<u>Post-Administration</u> Δ
Coach		
Deliver learning in real life context	-1.06	-0.81
Emphasize application in real world	-1.08	-0.86
Help learners achieve personal goals	-0.97	-0.58
Use role play and simulations	-1.19	-0.75
Use field projects	-1.22	-0.78
Provide opportunities for practice and feedback	-0.97	-1.00
Develop ability to apply learning	-1.00	-0.69
Develop ability to manage time	-1.00	-0.64
Develop learner's skill in planning and organizing	-1.22	-.061
Help learners apply what they have learned	-0.94	-0.69
Design educational programs that focus on practice and application	-1.14	-0.72
Take a coaching role with learners	-1.08	-0.83
Provide opportunities for "hands-on" learning	-1.14	-0.78
Coach learners individually to help them achieve their goals	-0.92	-0.61
Encourage learners to take risks	-1.11	-0.86
Average Coach Skill Score	-1.07	-0.75
Facilitator		
Use personal stories and experiences	-0.75	-0.44
Encourage conversation among learners	-1.19	-0.61
Aim for learners to develop a lifelong love of learning	-1.08	-1.00
Develop learners' understanding of their values	-1.17	-0.67
Develop learners' ability to be creative	-1.00	-0.72
Develop learners' empathic understanding of others	-1.11	-0.67

Skills	<u>Mid-Administration</u> Δ	<u>Post-Administration</u> Δ
Facilitator		
Help learners develop a concern about social issues	-0.97	-0.56
Encourage learners to create alternative solutions	-0.94	-0.67
Develop learners' understanding of others' points of view	-1.00	-0.72
Encourage learners to pursue the development of their interests	-1.08	-0.78
Show learners that I am a caring person	-0.97	-0.81
Provide a safe space for learners	-1.06	-0.72
Design an educational program around the learner's interests	-1.17	-0.75
Encourage learners to come up with creative ideas	-1.36	-0.92
Use group discussion for learners to reflect	-1.08	-0.83
Average Facilitator Skill Score	-1.06	-0.72
Expert		
Communicate my subject matter expertise	-0.86	-0.89
Deliver concepts and theories through well organized lectures	-1.14	-0.86
Question learners about their understanding of a concept	-0.86	-0.72
Encourage learners to read the literature about a subject critically	-1.03	-0.64
Model by demonstration how to think about a topic	-1.22	-1.08
Take a subject matter expert role with learners	-1.11	-0.97
Develop learners' knowledge and expertise in my subject	-1.11	-0.81
Teach methods for critical analysis of ideas	-1.06	-0.75
Model by demonstration how an expert thinks about a topic	-1.03	-0.64
Demonstrate my subject matter knowledge	-1.28	-0.86
Design educational programs based on the key concepts	-1.06	-0.75
Encourage learners to adhere to rules and procedures	-1.25	-0.83
Am logical in my teaching design	-1.11	-0.67
Communicate with learners on an intellectual level	-1.14	-0.78
Design an educational program around the basic principles	-1.11	-0.75
Average Expert Skill Score	-1.09	-0.80

Skills	<u>Mid-Administration</u> Δ	<u>Post-Administration</u> Δ
Evaluator		
Create a challenging environment	-1.00	-0.94
Use objective tests to evaluate	-0.92	-0.69
Outline step-by-step procedures for solving problems	-0.89	-0.75
Develop learner's problem solving skills	-1.25	-0.81
Establish standards and criteria for student performance	-1.08	-0.69
Provide a focused environment to analyze ideas	-1.00	-0.61
Create a challenging environment for quality work	-0.94	-0.75
Advise learners about the performance requirements of their career	-1.19	-0.86
Develop learners' ability to evaluate costs and benefits	-1.00	-0.67
Develop learners' skill in using the required materials	-0.97	-0.69
Prepare learners for jobs and careers	-0.94	-0.69
Am an objective evaluator	-1.28	-1.00
Design an educational program that sets clear procedures	-0.97	-0.39
Set standards and evaluate	-1.00	-0.78
Focus on performance outcomes	-1.08	-0.95
Average Evaluator Skill Score	-1.04	-0.75

During the post-administration, the largest authentic discrepancies were calculated for the following skills in each role: the coaching role, “provide opportunities for practice and feedback” ($\Delta = -1.00$); the facilitator role, “aim for learners to develop a lifelong love of learning” ($\Delta = -1.00$); the expert role, “model by demonstration how to think about a topic” ($\Delta = -1.08$); and the evaluator role, “am an objective evaluator” ($\Delta = -1.00$). The skills with the smallest authentic discrepancies for each role were: the coaching role, “coach learners individually to help them achieve their goals” ($\Delta = -0.92$); the facilitator role, “use personal stories and experiences” ($\Delta = -0.44$); the expert role, “encourage learners to read the literature about a subject critically” ($\Delta = -0.64$) and “model by demonstration how to think about a topic” ($\Delta = -0.64$); and the evaluator role, “design an educational program that sets clear procedures” ($\Delta = -0.39$).

Overall, authentic discrepancies in the coaching role were average: mid-administration ($\Delta = -1.07$) and post-administration ($\Delta = -0.75$). In comparison to the other roles, the facilitator role had average to lower discrepancies: mid-administration ($\Delta = -1.06$) and post-administration ($\Delta = -0.72$). The expert role was reported as the highest role discrepancies in both administrations: mid-administration ($\Delta = -1.09$) and post-administration ($\Delta = -0.80$). Finally, the evaluator role reported the initial lowest discrepancy and the final highest discrepancy: mid-administration ($\Delta = -1.04$) and post-administration ($\Delta = -0.75$).

In order to display comprehensive findings for research questions five and six, spider graphs were used to visualize the gaps between importance, competence and authentic assessment. *Figure 16* displays the pre-administration importance and competence scores for experiential educator skill. Authentic assessment was not collected in the initial administration because of the lack of time cooperating teachers had spent with their student teachers.

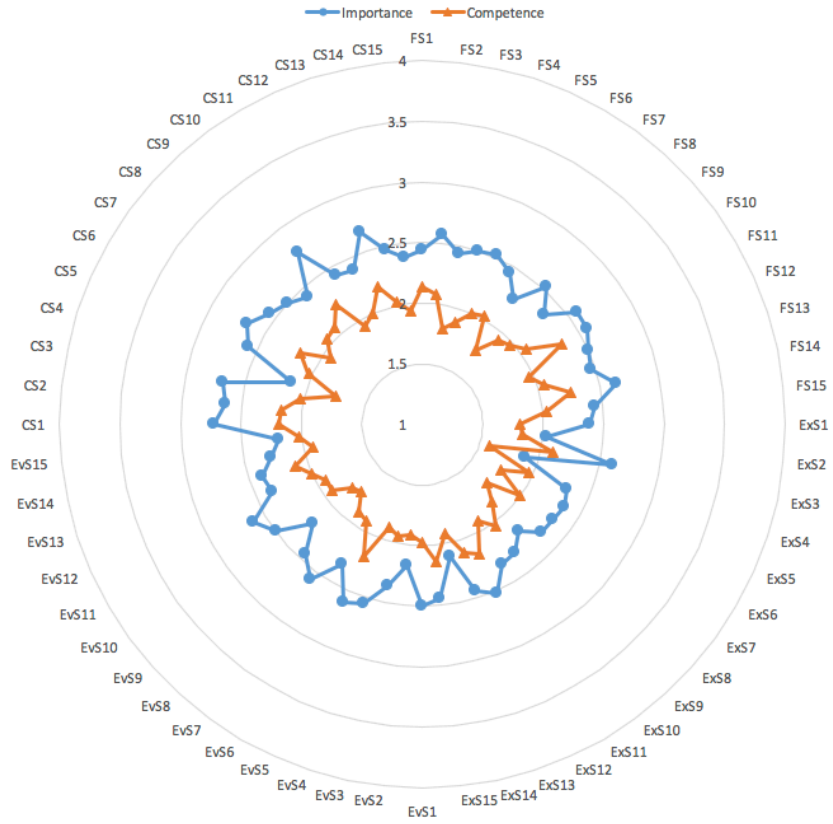


Figure 16. Pre-Administration Spider Graph.

During the pre-administration, student teachers' perceived importance means ranged between 1.89 and 2.75. The overall mean of importance for experiential educator skills at the beginning of the student teaching experience was 2.44. Perceived competence was below the importance means for all skills. The range of competence means was between 1.58 and 2.33. The overall mean of competence for experiential educator skills at the beginning of the student teaching experience was 1.99.

Figure 17 displays the mid-administration importance, competence and authentic assessment scores for the 60 experiential educator skills. Authentic assessment from the student teachers' corresponding cooperating teachers was collected in this administration.

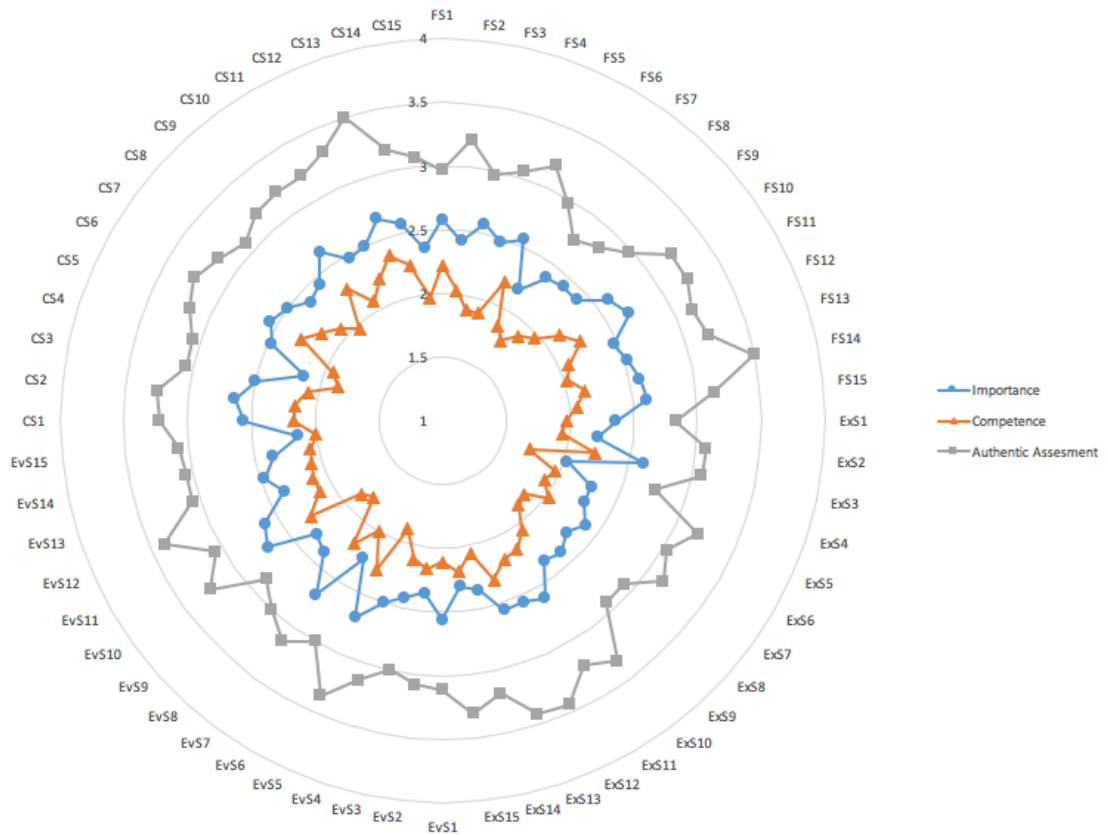


Figure 17. Mid-Administration Spider Graph.

In the mid-administration, student teachers' perceived importance means ranged between 2.03 and 2.69. The overall importance mean for experiential educator skills for the mid-administration was 2.46. Perceived competence was again below the importance means for all skills. The range of competence means was between 1.72 and 2.36. The overall mean of competence for experiential educator skills in the middle of the student teaching experience was 2.06. Authentic assessment scores were larger than both the importance and competence scores. Authentic assessment means ranged between 2.75 and 3.50. The overall mean of competence for experiential educator skills in the middle of the student teaching experience was 3.14.

Figure 18 displays the post-administration importance, competence and authentic assessment scores for each experiential educator skills. The gaps between importance and

competence begin to narrow and even overall in some instances. The authentic discrepancies between competence and authentic assessment also taper in but there is still some distance between how cooperating teachers and student teachers view student teacher competence.

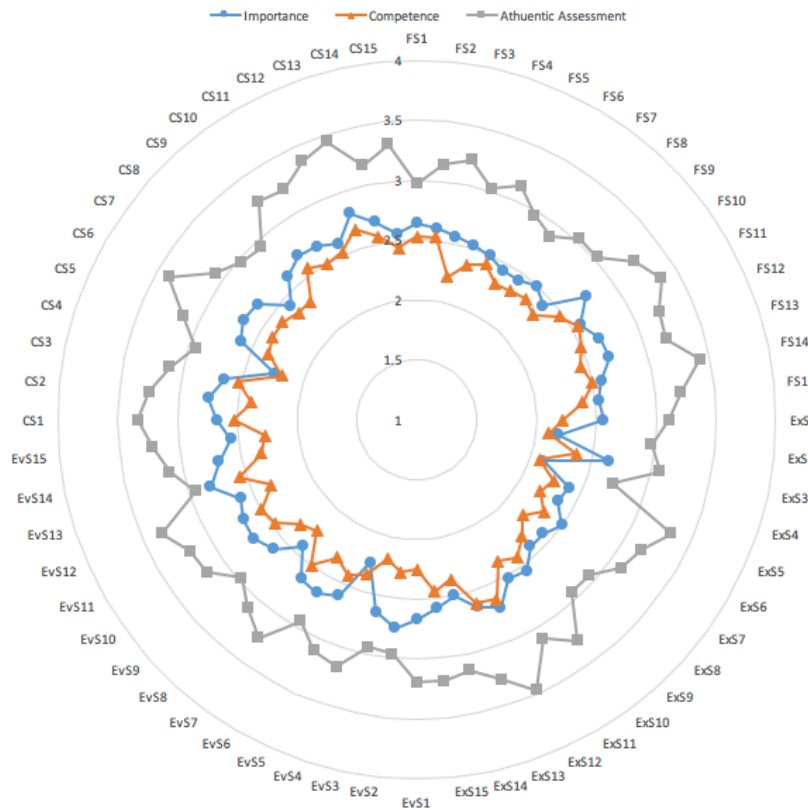


Figure 18. Post-Administration Spider Graph.

In the post-administration, perceived importance means ranged between 2.11 and 2.81. The overall importance mean for the post-administration was 2.57. Perceived competence was below the importance means for most skills however some skills had equal importance and competence. One skill, “develop learner’s problem solving skills” ($\Delta = -0.11$), had higher competence than importance. The range of competence means was between 2.08 and 2.67. The overall mean of competence for experiential educator skills at the end of student teaching was 2.29. Authentic assessment scores were larger than both the importance and competence scores but did begin to narrow in comparison to the mid-administration. Authentic assessment means

ranged between 2.72 and 3.47. The overall mean of competence for experiential educator skills at the end of the student teaching experience was 3.14.

Research Question 7

Research question seven sought to describe the experiential educator skill needs of student teachers before, during and after their student teaching experience. A needs assessment was conducted using Borich's (1960) needs assessment structure. Needs assessment rank was determined by calculating mean weighted discrepancy scores (MWDS). In order to calculate a MWDS, first discrepancy score were calculated by subtracting the importance rating from the competence rating for each respondent for each skill. A weighted discrepancy score was then calculated by multiplying each discrepancy score by the mean importance rating for that skill. Finally, a MWDS was calculated by summing the weighted discrepancy scores for each skill and dividing that total by the number of respondents ($n = 36$). In order for a teacher preparation program to optimize instruction, the top 15 needs in each administration should be the focused on.

Pre-Administration Needs Assessment.

Table 13 displays the skills in order of most needed to least needed. In the pre-administration, student teacher's identified a greater need for evaluator and coaching skills. The *GMWDS* for the pre-administration was 1.33. 33.3% of the top fifteen skills were in the evaluator role including the top three: "create a challenging environment for quality work" ($MWDS = 2.08$, rank=1); "prepare learners for jobs and careers" ($MWDS = 2.06$, rank=2); and "advise learners about the performance requirements of their career" ($MWDS = 2.00$, rank=3). 33.3% of the top fifteen skills were also in the coaching role with the highest coaching skill being, "help learners achieve personal goals" ($MWDS = 1.89$ rank=4).

Table 13

Pre- Administration Needs Assessment

Rank	Skill	Role	MWDS
1.	Create a challenging environment for quality work	Evaluator	2.08
2.	Prepare learners for jobs and careers	Evaluator	2.06
3.	Advise learners about the performance requirements of their career	Evaluator	2.00
4.	Communicate my subject matter expertise	Expert	1.97
5.	Help learners achieve personal goals	Coach	1.89
6.	Aim for learners to develop a lifelong love of learning	Facilitator	1.86
7.	Develop learner's problem solving skills	Evaluator	1.86
8.	Take a subject matter expert role with learners	Expert	1.83
9.	Encourage learners to create alternative solutions	Facilitator	1.83
10.	Develop ability to apply learning	Coach	1.81
11.	Develop learners' skill in using the required materials	Evaluator	1.72
12.	Use field projects	Coach	1.69
13.	Deliver learning in real life context	Coach	1.61
14.	Help learners apply what they have learned	Coach	1.58
15.	Develop learners' understanding of their values	Facilitator	1.56
16.	Provide a safe space for learners	Facilitator	1.53
17.	Create a challenging environment	Evaluator	1.50
18.	Develop learners' ability to be creative	Facilitator	1.50
19.	Design educational programs that focus on practice and application	Coach	1.47
20.	Encourage conversation among learners	Facilitator	1.44
21.	Provide opportunities for practice and feedback	Coach	1.44
22.	Help learners develop a concern about social issues	Facilitator	1.44
23.	Encourage learners to pursue the development of their interests	Facilitator	1.44
24.	Provide opportunities for "hands-on" learning	Coach	1.42
25.	Emphasize application in real world	Coach	1.39
26.	Question learners about their understanding of a concept	Expert	1.39
27.	Develop learners' ability to evaluate costs and benefits	Evaluator	1.36
28.	Develop ability to manage time	Coach	1.36
29.	Establish standards and criteria for student performance	Evaluator	1.31

Rank	Skill	Role	MWDS
30.	Take a coaching role with learners	Coach	1.31
31.	Outline step-by-step procedures for solving problems	Evaluator	1.25
32.	Develop learners' empathic understanding of others	Facilitator	1.25
33.	Develop learners' understanding of others' points of view	Facilitator	1.25
34.	Coach learners individually to help them achieve their goals	Coach	1.25
35.	Design an educational program around the learner's interests	Facilitator	1.22
36.	Am an objective evaluator	Evaluator	1.20
37.	Provide a focused environment to analyze ideas	Evaluator	1.19
38.	Use group discussion for learners to reflect	Facilitator	1.19
39.	Set standards and evaluate	Evaluator	1.19
40.	Encourage learners to take risks	Coach	1.19
41.	Design educational programs based on key concepts	Expert	1.17
42.	Encourage learners to come up with creative ideas	Facilitator	1.17
43.	Use objective tests to evaluate	Evaluator	1.08
44.	Encourage learners to adhere to rules and procedures	Expert	1.08
45.	Use role play and simulations	Coach	1.06
46.	Design an educational program that sets clear procedures	Evaluator	1.06
47.	Model by demonstration how to think about a topic	Expert	1.03
48.	Develop learners' knowledge and expertise in my subject	Expert	1.03
49.	Develop learner's skill in planning and organizing	Coach	1.00
50.	Am logical in my teaching design	Expert	1.00
51.	Design an educational program around the basic principles	Expert	1.00
52.	Model by demonstration how an expert thinks about a topic	Expert	0.97
53.	Use personal stories and experiences	Facilitator	0.92
54.	Show learners that I am a caring person	Facilitator	0.83
55.	Demonstrate my subject matter knowledge	Expert	0.83
56.	Deliver concepts and theories through well organized lectures	Expert	0.81
57.	Encourage learners to read the literature about a subject critically	Expert	0.81
58.	Teach methods for critical analysis of ideas	Expert	0.78
59.	Communicate with learners on an intellectual level	Expert	0.67
60.	Focus on performance outcomes	Evaluator	0.61
<i>GMWDS</i>			1.33

Student teacher's identified little need for expert skills. 66.7% of the bottom fifteen skills were in the expert role including three of the final four: "encourage learners to read the literature about a subject critically" (*MWDS*= 0.81, rank= 57); "teach methods for critical analysis of ideas" (*MWDS*= 0.78, rank= 58); and "communicate with learners on an intellectual level" (*MWDS*= 0.67, rank= 59). The final skill identified in the pre-administration needs assessment was the evaluator skill "focus on performance outcomes" (*MWDS*= 0.61, rank= 60).

Mid-Administration Needs Assessment.

Table 14 displays the skills in order of most needed to least needed. In the mid-administration, student teacher's identified a greater need for facilitator and evaluator skills. The *GMWDS* for the pre-administration was 1.21. 46.7% of the top fifteen skills were in the facilitator role including two of the top three: "aim for learners to develop a lifelong love of learning" (*MWDS*= 2.08, rank=1); and "help learners develop a concern about social issues" (*MWDS*= 1.81, rank=3). 33.3% of the top fifteen skills were also in the evaluator role with the highest evaluator skill being, "advise learners about the performance requirements of their career" (*MWDS*= 1.89 rank=2).

Table 14

Mid-Administration Needs Assessment

Rank	Skill	Role	MWDS
1.	Aim for learners to develop a lifelong love of learning	Facilitator	2.08
2.	Advise learners about the performance requirements of their career	Evaluator	1.81
3.	Help learners develop a concern about social issues	Facilitator	1.75
4.	Develop learner's problem solving skills	Evaluator	1.69
5.	Develop learners' understanding of their values	Facilitator	1.64
6.	Use group discussion for learners to reflect	Facilitator	1.61
7.	Create a challenging environment for quality work	Evaluator	1.58
8.	Use field projects	Coach	1.50
9.	Encourage learners to create alternative solutions	Facilitator	1.50
10.	Create a challenging environment	Evaluator	1.44
11.	Develop learners' understanding of others' points of view	Facilitator	1.44
12.	Prepare learners for jobs and careers	Evaluator	1.44
13.	Model by demonstration how an expert thinks about a topic	Expert	1.44
14.	Emphasize application in real world	Coach	1.42
15.	Design an educational program around the learner's interests	Facilitator	1.42
16.	Develop learners' ability to evaluate costs and benefits	Evaluator	1.39
17.	Develop learners' skill in using the required materials	Evaluator	1.39
18.	Develop learner's skill in planning and organizing	Coach	1.39
19.	Show learners that I am a caring person	Facilitator	1.36
20.	Design educational programs based on key concepts	Expert	1.36
21.	Establish standards and criteria for student performance	Evaluator	1.33
22.	Encourage learners to pursue the development of their interests	Facilitator	1.33
23.	Design an educational program that sets clear procedures	Evaluator	1.31
24.	Encourage conversation among learners	Facilitator	1.28
25.	Question learners about their understanding of a concept	Expert	1.28
26.	Teach methods for critical analysis of ideas	Expert	1.28
27.	Deliver learning in real life context	Coach	1.25
28.	Help learners achieve personal goals	Coach	1.25
29.	Encourage learners to come up with creative ideas	Facilitator	1.25

Rank	Skill	Role	MWDS
30.	Communicate my subject matter expertise	Expert	1.22
31.	Develop ability to apply learning	Coach	1.17
32.	Develop learners' ability to be creative	Facilitator	1.14
33.	Develop learners' knowledge and expertise in my subject	Expert	1.14
34.	Design educational programs that focus on practice and application	Coach	1.14
35.	Help learners apply what they have learned	Coach	1.11
36.	Encourage learners to take risks	Coach	1.11
37.	Outline step-by-step procedures for solving problems	Evaluator	1.08
38.	Take a subject matter expert role with learners	Expert	1.08
39.	Develop ability to manage time	Coach	1.08
40.	Provide a safe space for learners	Facilitator	1.08
41.	Provide opportunities for "hands-on" learning	Coach	1.06
42.	Coach learners individually to help them achieve their goals	Coach	1.06
43.	Use personal stories and experiences	Facilitator	1.03
44.	Develop learners' empathic understanding of others	Facilitator	1.03
45.	Encourage learners to adhere to rules and procedures	Expert	1.03
46.	Model by demonstration how to think about a topic	Expert	1.00
47.	Demonstrate my subject matter knowledge	Expert	1.00
48.	Take a coaching role with learners	Coach	1.00
49.	Set standards and evaluate	Evaluator	1.00
50.	Deliver concepts and theories through well organized lectures	Expert	0.97
51.	Am an objective evaluator	Evaluator	0.97
52.	Provide opportunities for practice and feedback	Coach	0.94
53.	Encourage learners to read the literature about a subject critically	Expert	0.89
54.	Communicate with learners on an intellectual level	Expert	0.89
55.	Am logical in my teaching design	Expert	0.83
56.	Provide a focused environment to analyze ideas	Evaluator	0.81
57.	Use objective tests to evaluate	Evaluator	0.75
58.	Use role play and simulations	Coach	0.75
59.	Focus on performance outcomes	Evaluator	0.61
60.	Design an educational program around the basic principles	Expert	0.53
<i>GMWDS</i>			1.21

Again, student teacher's identified little need for expert skills. 46.7% of the bottom fifteen skills were in the expert role including the final skill with the lowest *MWDS*: "design an educational program around the basic principles" (*MWDS*= 0.53, rank= 60). 33.3% of the bottom fifteen skills were in the evaluator role including the 59th ranked skill: "focus on performance outcomes" (*MWDS*= 0.61, rank= 59). No facilitator skills were ranked the bottom fifteen skills.

Post-Administration Needs Assessment.

Table 15 displays the skills in order of most needed to least needed. In the post-administration, student teacher's identified a greater need for evaluator and coaching skills. The *GMWDS* for the post-administration was 0.53. 33.3% of the top fifteen skills were in the evaluator role including two of the top three: "create a challenging environment" (*MWDS*= 1.34, rank=1); and "outline step-by-step procedures for solving problems" (*MWDS*= 1.06, rank=3). Additionally, 33.3% of the top fifteen skills were also in the coaching role with the highest coaching skill being, "emphasize application in real world" (*MWDS*= 1.06 rank=2).

Table 15

Post-Administration Needs Assessment

Rank	Skill	Role	MWDS
1.	Create a challenging environment	Evaluator	1.34
2.	Emphasize application in real world	Coach	1.06
3.	Outline step-by-step procedures for solving problems	Evaluator	1.06
4.	Aim for learners to develop a lifelong love of learning	Facilitator	1.00
5.	Communicate my subject matter expertise	Expert	0.97
6.	Question learners about their understanding of a concept	Expert	0.97
7.	Establish standards and criteria for student performance	Evaluator	0.86
8.	Develop learner's skill in planning and organizing	Coach	0.86
9.	Encourage learners to pursue the development of their interests	Facilitator	0.83
10.	Provide opportunities for practice and feedback	Coach	0.81
11.	Develop ability to apply learning	Coach	0.81
12.	Develop learner's problem solving skills	Evaluator	0.78
13.	Teach methods for critical analysis of ideas	Expert	0.78
14.	Prepare learners for jobs and careers	Evaluator	0.78
15.	Use field projects	Coach	0.75
16.	Design an educational program around the learner's interests	Facilitator	0.75
17.	Am an objective evaluator	Evaluator	0.64
18.	Take a subject matter expert role with learners	Expert	0.61
19.	Advise learners about the performance requirements of their career	Evaluator	0.58
20.	Encourage learners to create alternative solutions	Facilitator	0.58
21.	Demonstrate my subject matter knowledge	Expert	0.58
22.	Design educational programs based on key concepts	Expert	0.58
23.	Develop learners' ability to evaluate costs and benefits	Evaluator	0.56
24.	Design educational programs that focus on practice and application	Coach	0.56
25.	Develop learners' understanding of others' points of view	Facilitator	0.53
26.	Develop learners' knowledge and expertise in my subject	Expert	0.53
27.	Develop learners' understanding of their values	Facilitator	0.52
28.	Model by demonstration how to think about a topic	Expert	0.50
29.	Provide a safe space for learners	Facilitator	0.50

Rank	Skill	Role	MWDS
30.	Use group discussion for learners to reflect	Facilitator	0.50
31.	Help learners develop a concern about social issues	Facilitator	0.48
32.	Communicate with learners on an intellectual level	Expert	0.47
33.	Deliver learning in real life context	Coach	0.44
34.	Help learners achieve personal goals	Coach	0.44
35.	Help learners apply what they have learned	Coach	0.44
36.	Coach learners individually to help them achieve their goals	Coach	0.44
37.	Take a coaching role with learners	Coach	0.44
38.	Use role play and simulations	Coach	0.42
39.	Create a challenging environment for quality work	Evaluator	0.42
40.	Develop ability to manage time	Coach	0.42
41.	Provide opportunities for “hands-on” learning	Coach	0.42
42.	Use personal stories and experiences	Facilitator	0.39
43.	Model by demonstration how to think about a topic	Expert	0.39
44.	Design an educational program that sets clear procedures	Evaluator	0.39
45.	Encourage learners to come up with creative ideas	Facilitator	0.39
46.	Encourage learners to take risks	Coach	0.39
47.	Use objective tests to evaluate	Evaluator	0.36
48.	Deliver concepts and theories through well organized lectures	Expert	0.33
49.	Develop learners’ ability to be creative	Facilitator	0.33
50.	Develop learners’ skill in using the required materials	Evaluator	0.33
51.	Focus on performance outcomes	Evaluator	0.33
52.	Encourage conversation among learners	Facilitator	0.31
53.	Encourage learners to read the literature about a subject critically	Expert	0.28
54.	Provide a focused environment to analyze ideas	Evaluator	0.28
55.	Encourage learners to adhere to rules and procedures	Expert	0.28
56.	Take a coaching role with learners	Coach	0.28
57.	Develop learners’ empathic understanding of others	Facilitator	0.22
58.	Am logical in my teaching design	Expert	0.22
59.	Set standards and evaluate	Evaluator	0.19
60.	Show learners that I am a caring person	Facilitator	0.14
<i>GMWDS</i>			0.53

Student teacher's identified a low need for some skills in the evaluator, expert and facilitator roles. 33.3% of the bottom fifteen skills were in the evaluator role including, "set standards and evaluate" (*MWDS*= 0.14, rank= 60). The expert role made up 26.7% of the bottom fifteen skills which included, "am logical in my teaching design" (*MWDS*= 0.22, rank= 58). The facilitator role also composed 26.7% of the bottom fifteen skills including the skill with the lowest *MWDS*, "show learners that I am a caring person" (*MWDS*= 0.14, rank= 60).

Chapter Summary

Chapter IV provided an overview of the findings for each administration in response to each research objective. The following findings are discussed:

- In response to research objective one, student teachers in the sample were on average in enrolled in agricultural classes for all four years of high school, from families that understand agriculture but are not actively involved, and identified FFA officer positions, SAE projects and exhibiting livestock as the experiences they were most involved in.
- In response to research objective two, the coaching role was identified as the most importance role in all three administrations. The facilitator role saw some change throughout the student teaching experience and was moderately rated in importance. The expert role was rated the least important consistently throughout each administration. Finally, the evaluator role was moderately rated as important in each administration.
- In response to research objective three, student teachers perceived the coaching role to be the role they are most competent at. Competence in the facilitator role was moderately rated in comparison to the other roles. The expert role was reported as one of the lowest roles throughout each administration. Finally, the evaluator role was also seen as a role student teachers were moderately competent at.

- In response to research objective four, cooperating teachers perceived their student teachers' competence in the coaching role to be the highest of any role. Authentic assessment in the facilitator and evaluator roles rated competence from the low to moderate. The expert role was also reported as a moderate role in both authentic assessments.
- In response to research objective five, discrepancies in the coaching and evaluating roles were moderate. The facilitator role initially had large discrepancies but during the post-administration had the lowest discrepancies of any role. The expert role was reported as one of the lowest roles throughout each administration
- In response to research objective six, discrepancies between competence and authentic assessment in the coaching role were moderate. The facilitator role had moderate to low discrepancies. The expert role was reported as the highest role discrepancies in both administrations. Finally, the evaluator role reported the initial lowest discrepancy and the final highest discrepancy.
- In response to research objective seven, each needs assessment showed student teachers' have different needs for each administration. Overall the evaluator role reminded the role with the most skills needed and the expert role was the role with the lowest need.

Chapter V will deduce these findings further by drawing conclusions based on the analyses, making recommendations, and discussing implications.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS,

RECOMMENDATIONS AND DISCUSSION

Agricultural education programs across the United States are experiencing a shortage of qualified teachers (Boone & Boone, 2009; Foster, Lawver, & Smith, 2014; National Teach Ag Campaign, 2014). This has spurred teacher education programs to prepare future educators to fill those vacancies (Rocca & Washburn, 2006). Agricultural education prides itself on being experiential and as such, teacher training should also focus on experiential approaches to learning (Baker & Twenter, 2016). In response to this need, the study sought to determine the impact of the student teaching experience on student teachers' experiential educator skill development. The study was framed by seven research objectives:

1. Identify the previous related experiences of agricultural education student teachers at universities in Oklahoma and Texas.
2. Identify agricultural education student teachers' perceived importance of experiential educator skills prior to, during and after student teaching.
3. Identify agricultural education student teachers' perceived competence of experiential educator skills prior to, during, and after student teaching.

4. Identify cooperating teachers' authentic assessment of student teachers' experiential educator skills.
5. Identify discrepancies between agricultural education student teachers' perceived importance and perceived competence for each experiential educator skill.
6. Identify discrepancies between cooperating teachers' authentic assessment and agricultural education student teachers' perceptions of competence for each experiential educator skill.
7. Identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching.

Chapter I provided an overview of literature, described the background of the study, addressed the problem, and justified a need for the study. The purpose of the study, statement of the research objectives, definition of terms, and an explanation of limitations and assumptions were also discussed. Chapter II examined literature related to the lack of qualified teachers, experiential learning in agricultural education, skill development, and the preparation of student teachers. Kolb's ELT (2015) and Kolb et al.'s ERP (2014) were presented as the frameworks for the study. Chapter III outlined the research design used to explore each research objective. Chapter IV presented the findings of the study. Chapter V provides a brief overview of design, methods and findings to set context as well as providing the final summary of conclusions, discussions, implications, and recommendations of the findings.

Methods

The design of this study was descriptive survey design to measure perceived importance, perceived competence, and authentic assessment for each role described in Kolb et al.'s, (2014) ERP three times throughout the student teaching experience. Instrumentation for this study was

modeled after Borich's (1980) needs assessment model to determine discrepancies between perceived importance and perceived competence as well as between perceived competence and authentic assessment provided by the student teacher's cooperating teacher.

The population of this study was agricultural education student teachers at universities in Texas and Oklahoma who were engaged in their student teaching experience during the Spring of 2016 ($N = 168$). A convenience sample ($n = 91$) was taken from four representative universities that have agricultural education teacher preparation programs. Due to attrition and incomplete response, 36 participant responses were used in the study.

All data were analyzed using Statistical Package for Social Sciences (SPSS[®]), version 21, for Macintosh computers. This study used frequencies and percentages to accomplish research objective one; sample means and standard deviations for research objectives two, three, and five; and *MWDS* to answer research objectives five, six and seven.

Summary of Findings

Findings were summarized by research objective. The mean and standard deviations for research objectives two, three, four are summarized by role under each research objective. Discrepancy scores are reported by role under each research objective.

Research Objective One

Research objective one sought to identify the previous related experiences student teachers before their student teaching experience. The student teachers in the sample were on average in enrolled in agricultural classes for all four years of high school, $f = 27$, 72.2%. "Family understands but not actively involved," was the most common agricultural background, $f = 16$, 44.4%. Student teachers identified FFA officer positions; $f = 26$, % = 72.2; SAE projects; $f = 32$, 88.9%; and exhibiting livestock; $f = 30$, 83.3%; as the experiences they were most involved.

Research Objective Two

Research objective two aimed to identify student teachers' importance for experiential educating skills before, during and after their student teaching experience. Throughout data collection, the coaching role remained an important role; pre-administration ($M= 2.53, SD= 0.60$), mid-administration ($M= 2.49, SD= 0.63$), and post-administration ($M= 2.62, SD= 0.56$). Importance in the facilitator role saw some change throughout the student teaching experience and was rated the second most important: pre-administration ($M= 2.49, SD= 0.61$), mid-administration ($M= 2.50, SD= 0.59$), and post-administration ($M= 2.56, SD= 0.57$). The expert role was rated the least important consistently throughout each administration: pre-administration ($M= 2.31, SD= 0.65$), mid-administration ($M= 2.38, SD= 0.62$), and post-administration ($M= 2.47, SD= 0.59$). Finally, the evaluator role began as the third most important role and ended as the one of the most important roles: pre-administration ($M= 2.41, SD= 0.67$), mid-administration ($M= 2.45, SD= 0.62$), and post-administration ($M= 2.62, SD= 0.57$).

Research Objective Three

Research objective three focused on identifying student teachers' perceived competence for experiential educating skills before, during and after their student teaching experience. Student teachers perceived the coaching role to be the role they are most competent at: pre-administration ($M= 2.05, SD= 0.69$), mid-administration ($M= 2.13, SD= 0.64$), and post-administration ($M= 2.45, SD= 0.57$). The facilitator role was rated second in perceived competence in comparison to the other roles; pre-administration ($M= 2.02, SD= 0.69$), mid-administration ($M= 2.03, SD= 0.68$), and post-administration ($M= 2.42, SD= 0.59$). The expert role was reported as one of the lowest roles throughout each administration: pre-administration ($M= 1.93, SD= 0.64$), mid-administration ($M= 2.04, SD= 0.59$), and post-administration ($M= 2.32, SD= 0.57$). Finally, the evaluator role was also seen as the third most competent role: pre-

administration ($M= 1.94, SD= 0.67$), mid-administration ($M= 2.07, SD= 0.60$) and post-administration ($M= 2.36, SD= 0.57$).

Research Objective Four

Research objective four sought to identify cooperating teachers' authentic assessment of student teacher's competence for experiential educating skills before, during and after their student teaching experience. Cooperating teachers perceived their student teachers' competence in the coaching role to their most competent; mid-administration ($M= 3.20, SD= 0.76$) and post-administration ($M= 3.19, SD= 0.71$). Authentic assessment in the facilitator role rated was average in comparison to most of the other roles; mid-administration ($M= 3.09, SD= 0.75$) and post-administration ($M= 3.14, SD= 0.71$). The expert role was also reported as the second more competent role in both authentic assessments; mid-administration ($M= 3.14, SD= 0.75$) and post-administration ($M= 3.12, SD= 0.74$). Finally, the evaluator role was seen as a role in which student teachers' competence was low in comparison to the other roles: mid-administration ($M= 3.11, SD= 0.72$) and post-administration ($M= 3.11, SD= 0.74$).

Research Objective Five

Research objective five focused on identifying the discrepancies between student teachers perceived importance and competence for experiential educating skills before, during and after their student teaching experience. Discrepancies in the coaching role were average: pre-administration ($\Delta= 0.48$), mid-administration ($\Delta= 0.37$), and post-administration ($\Delta=0.17$). The facilitator role initially had larger discrepancies in comparison to the other roles: pre-administration ($\Delta= 0.48$), mid-administration ($\Delta=0.47$) but during the post-administration had the lowest discrepancies of any role, ($\Delta= 0.14$). The expert role was reported as one of the lowest roles throughout each administration: pre-administration ($\Delta=0.38$), mid-administration ($\Delta=0.34$), and post-administration ($\Delta=0.15$). Finally, the evaluator role reported average to higher

discrepancies in comparison to the other roles: pre-administration ($\Delta=0.46$), mid-administration ($\Delta= 0.39$), and post-administration ($\Delta=0.20$).

Research Objective Six

Research objective six aimed to identify discrepancies between student teachers' perceived competence and their cooperating teacher's authentic assessment for experiential educating skills before, during and after their student teaching experience. Discrepancies in the coaching role were average: mid-administration ($\Delta= -1.07$) and post-administration ($\Delta= -.75$). In comparison to the other roles, the facilitator role had average to lower discrepancies: mid-administration ($\Delta=-1.06$) and post-administration ($\Delta= -0.72$). The expert role was reported as the highest role discrepancies in both administrations: mid-administration ($\Delta= -1.09$) and post-administration ($\Delta= -0.80$). Finally, the evaluator role reported the initial lowest discrepancy and the final highest discrepancy: mid-administration ($\Delta= -1.04$) and post-administration ($\Delta= -0.75$).

Research Objective Seven

Research objective seven aimed to identify the needs for experiential educator skills for student teachers prior to, during, and after student teaching. The three needs assessment showed student teachers' have different needs for each administration. Overall, the evaluator role reminded the role with the most skills needed and the expert role was the role with the lowest need.

Conclusions

The following conclusions are made based on the findings of the study and recognizing the limitations brought on by design and population choices, eight conclusions were made. Each conclusion is discussed further in the following section.

1. Student teachers were highly involved in school-based agricultural education and the FFA but most did not grow up on a farm.
2. Student teaching enhances all four educator roles in varying ways and to varying degrees.
3. Student teaching narrows the gaps between student teachers' perceived importance and competence as well as the gaps between perceived competence and authentic assessment associated with educator roles.
4. Student teachers have different needs at different times throughout the student teaching experience.
5. In comparison to the other roles, student teachers do not consider an expert important nor do they perceive themselves to be experts.
6. Student teachers perceive themselves predominately as coaches.
7. The greatest growth in student teachers' perceptions of the importance of the four roles and their competence in those roles occurs between the midpoint and conclusion of the student teaching experience.
8. Cooperating teachers only recognize their student teacher's growth in the facilitator role.

Discussions and Implications

Conclusions are based theoretically in Kolb's (2015) Experiential Learning Cycle and Kolb et al.'s (2014) Educator Role Profile. Discussions and implications are tied to not only these frameworks but also previous literature discussed in chapter two.

Conclusion 1: Student teachers were highly involved in school-based agricultural education and the FFA but most did not grow up on a farm.

Research reinforces this conclusion as a similar trend has emerged. Rice and Kitchel (2015) found student teachers gained their agricultural knowledge from high school agricultural education and college agricultural course work. They concluded students who intended to teach

high school agricultural education do not come into teacher preparation programs with an authentic background of agricultural knowledge (Rice & Kitchel, 2015). Perhaps this lack of authentic agricultural background is leading to a lack of content knowledge. Mundt and Connors (1999) found most student teachers identified as not having industry related agricultural experience and most saw this lack of experience as a challenge to their success. There seems to be a disconnect from authentic agriculture among student teachers. Lawver and Torres (2012) found a positive relationship between the number of years' student teachers are members of the FFA and involved in school-based agricultural education and their attitudes, behaviors and intent to teach. They also found a negative correlation between extensive agricultural experience and attitudes, behaviors and intentions to teach (Lawver & Torres, 2012). These correlations could mean student teachers are joining because of their passion for students and student leadership rather than because of their love of agricultural content.

Multiple implications arise in response to this conclusion. Student teachers lack experience and passion for agriculture could lead to a lack of connection to authentic agriculture for their future students. Student teachers in this study relied on the expertise of their agricultural teachers and the opportunities provided through their agricultural classes and FFA involvement as the source of experience. If this trend continues, student teachers would provide same lack of expertise to future students leading to a further decline of authentic agricultural experience. Another implication of relying on school-based agriculture classes and the FFA as sources for agricultural experience is if those experiences are poor in quality they could lead to a lack of true agricultural experience. This situation could also have unintended consequences on future students.

Conclusion 2: Student teaching enhances all four educator roles in varying ways and to varying degrees.

This study found student teachers' perceptions associated with all four educator roles were enhanced during student teaching. Boyatzis and Kolb (1995) stated skills can be developed through practice. Fitts (1964) described the three stages of skill development to be cognitive, associative, and autonomous. When individuals reach the autonomous stage, skill growth occurs. Agricultural teacher educators rely on student teaching to provide practice to prepare student teachers for their career as teachers. Results from this study indicate that through practice, student teaching moves student teachers toward the autonomous stage, thus facilitating growth.

For participants in this study, the degree and ways perceptions about these roles developed varied among roles. Roles that started with high rating of importance and competence remained the roles student teachers perceived as important and the areas of highest self perceived competence. Those roles were coach and facilitator. The roles student teachers rated low in importance and competence continued to have lower ratings. Those roles were expert and evaluator. If agricultural education programs are to truly provide experiential learning opportunities to student, the student teaching experience should intentionally lead student teachers toward a balance of roles. Kolb (2015) found each educator role can be developed through practice if the teacher has a desire for growth and balance. Perhaps importance and desire for growth are interrelated. If student teachers do not find a role important, will they see the need for growing that role?

Kolb (2015) stated practice can lead to flexibility in the use of roles and create "a more powerful and effective process of teaching and learning" (p. 36). Kolb and Kolb (2014) emphasized role balance leads to greater flexibility. Could this balance possibly occur because of

competence in using each role? If student teaching allows student teachers to become more competent, would greater flexibility result?

Several implications arise from this conclusion. First, a student developing roles unequally could lead to only the improvement of roles in which student teachers are already competent. During one of the most influential times in teacher preparation, student teachers may not capitalize on opportunities to grow their areas of weakness. Secondly, optimal skill growth is only established if the student teacher reaches the autonomous stage (Fitts, 1964). This growth requires time and practice. Student teaching programs vary in length and amount of teaching practice; therefore, some student teachers may never reach this stage of skill development. Finally, role flexibility is reachable when roles are balanced, but this study found student teaching does not facilitate balance. Flexibility is essential to facilitate students through the entire experiential learning cycle.

Conclusion 3: Student teaching narrows the gaps between student teachers' perceived importance and competence as well as the gaps between perceived competence and authentic assessment associated with educator roles.

This study found student teaching helps narrow the gaps between both perceived importance and perceived competence and the gaps between perceived competence and authentic assessment. Boyatzis and Kolb (1991) stated skills are developed when identification and practice meet. Similarly, Young and Edwards (2006) found student teaching participation bridges perceptions of theory and practice. This study employed the Borich (1980) needs assessment model that utilizes “a self-evaluative procedure which relies on teachers’ judgments about their own performance” (p. 3). This model assumes teachers can evaluate their own performance objectively to facilitate growth during training (Borich, 1980). Perhaps adapting Kolb et al.’s (2014) Educator Role Profile to the Borich (1980) needs assessment model allowed for student

teachers to become self-aware of the gaps and spurred the need for growth in certain skills. This realization could have been the bridge between theory and practice needed for growth.

Kolb's (2015) Experiential Learning Theory states learning occurs when learners resolve the conflicts. The theory describes that through conflict resolution, students gain new knowledge and this knowledge spurs additional experiential learning cycles (Kolb, 2105). Perhaps a similar phenomenon occurs in skill development. It seems as student teachers narrow the gaps between importance and competence, and between perceived competence and authentic assessment, skills are developed.

Two major implications arose from this conclusion. First, an initial gap is needed for growth to occur. If a gap is present, perhaps conflict occurs and a need for growth is established. If no gap is present, or the student teachers are unaware of gaps, there may be no felt need to develop skills. Secondly, skill development requires time. If time is not provided for practice, student teachers will not have the opportunity to narrow these gaps. Perhaps if student teachers do not have time to self-assess their perceived importance and competence for each role, they will not be able to identify areas of improvement.

Conclusion 4: Student teachers have different needs at different times throughout the student teaching experience.

This study found that student teachers identified a need for different skills and roles at distinctive times during their student teaching experience. Each needs assessment displayed the skills, most of which were different than the previous needs assessment, that student teachers identified the greatest need for during that stage of their student teaching experience. Kolb's (2015) model of experiential learning theory of growth and development supports the notion that necessities are determined by circumstance and level of growth. If student teachers are growing, their needs should change to reflect these developments.

Previous literature also supports this conclusion. Wittington (2005) found teacher preparation should be approached as a process where different needs are addressed throughout a preservice teachers' education. Perhaps this approach should be included in the seminar needs of student teachers as well. Schuman (1969) also found student teaching to be a maturation process that requires altered support throughout. Perhaps as student teachers mature, the need for support in bridging the gaps between importance and competence for specific skills also changes.

One major implication arises from this conclusion. First, if student teachers are not receiving support and feedback on their growth in experiential educator skills, their needs for certain skills may never be met. Some skills in the top 25% remained in this area of high need because the student teacher never perceived that they bridged this gap. Could this occur less frequently if more intentional support was provided throughout the student teaching experience in the form of seminars and in-services?

Conclusion 5: In comparison to the other roles, student teachers do not consider an expert important nor do they perceive themselves to be experts.

Kolb (2015) described the expert role as educators helping, learners organize and connect their reflection to the knowledge base of the subject matter. They adopt an authoritative, reflective style. They often teach by example, modeling and encouraging critical thinking as they systematically organize and analyze the subject matter knowledge. This knowledge is often communicated through lectures and texts. (p. 304)

Educators who take on the expert role utilize reflective observation and abstract conceptualization to connect learner reflection to knowledge to form theories (Kolb et al., 2014).

This study found student teachers reported the expert role as the lowest importance and competence among the four educator roles. This conclusion was reinforced by several other studies. Blackburn et al. (2015) learned student teachers are not efficacious in their content knowledge. Krysher et al. (2012) determined student teachers do not feel confident in their ability to be an agricultural subject matter expert. Perhaps low efficacy in content knowledge is directly reflected in perceived competence scores for the expert role. Scales et al. (2009) found agricultural educators lack science and math knowledge. Rice and Kitchel (2015) discovered student teachers are unsure how to transfer content knowledge into the classroom. Why do student teachers have a low preference for the expert role? Could it be because student teachers are not knowledgeable and lack approaches to teach content knowledge?

Baker and Twenter (2016) found the expert role was preferred by only 1.7% of student teachers at Oklahoma State University. Kolb (2015) stated teachers have preferences for roles, but any role can be developed with practice when the teacher desires to do so. Stripling et al. (2008) found student teacher desire to learn is directly connected to the value you place on that information. Perhaps the lack of preference student teachers have for the expert role is related to the low ratings they gave this role on the importance and competence scales.

This conclusion leads to several implications. First, this lack of importance and competence in the expert role could lead to a decrease of content knowledge used in school-based agricultural education classrooms and laboratories. This conclusion is likely coupled with the conclusion student teachers do not have a strong agricultural background and are not confident in their ability to be experts. This lack of expertise could lead to a further decline of agricultural knowledge for future agricultural education students. Secondly, if student teachers do not have a preference for the expert role, it could lead directly to a decrease in the amount of abstraction and reflection their students complete in a lesson. As a result, students would have limited ability to

connect reflection to knowledge to form a theory. These elements are critical to the experiential learning cycle, and when left out, can negatively affect learning.

Conclusion 6: Student teachers perceive themselves predominately as coaches.

This study found that student teachers strongly identify the coaching role as the most important and the role in which they are most competent. Their cooperating teachers also rated the coaching role as the role their student teachers are the most competent. Kolb (2015) described the coaching role as the role where,

educators help learners apply knowledge to achieve their goals. They adopt a collaborative, encouraging style, often working one-on-one with individuals to help them learn from experiences in their life context. They assist in the creation of personal development plans and provide ways of getting feedback on performance. (p. 304)

When educators take on the coaching role they help learners take action on personalized goals by utilizing the concrete experience and active experimentation stages of the experiential learning cycle (Kolb, 2015).

Previous research also supports this conclusion. Baker and Twenter (2016) found eighty-eight percent of the sample of student teachers at Oklahoma State University preferred the coaching role. Shoulders et al. (2013) found that teachers most often utilized activities that fall in the concrete experience and active experimentation phases of the experiential learning cycle. Kolb (2015) emphasized the necessity of pairing these phases with the coaching role. Perhaps student teachers prefer the coaching role because it focuses on what agricultural education naturally does; provides experiences and allows students to actively experiment to test out new theories.

Several implications should be considered for this conclusion. Student teachers are

coaches, and as such, tend to enjoy working with students on a one-on-one basis to provide feedback. This strong preference could lead to neglect for the other roles. If teachers are taking on the coaching role the majority of the time, their students could be limited from completing the entire experiential learning cycle. They would often utilize concrete experiences and active experimentation and hardly allow students to use reflective observation and abstract conceptualization. This would be an experience but perhaps not experiential learning (Dewey, 1938).

Conclusion 7: The greatest growth in student teachers' perceptions of the importance of the four roles and their competence in those roles occurs between the midpoint and conclusion of the student teaching experience.

This study found student teachers' perceived importance and competence grew the most between the mid- and post- administrations. Previous research reaffirms this conclusion. Boyatzis and Kolb (1995) found skills are developed through practice. Kolb (2015) also identified practice as the optimal way to balance educator roles. Kolb's (2015) ELT states learner growth requires multiple complete cycles to increase complex thinking. Perhaps practice improves efficacy and provides relevance that can lead to an increase in importance. This idea would explain why a large jump in perceptions related to both importance and competence occurred later in the student teacher internship.

Schuman (1969) described three stages of student teaching: orientation, participation and maturation. He defined the maturation stage as the time for skill development and growth because by this stage, student teachers are no longer just observing or participating, but are fully engaged in facilitating all three circles of agricultural education. Stimson (1919) stressed skills cannot be developed from just observing. Rather, learners need to be actively engaged in practice. Borne and Moss (1990) identified the need for student teachers to have direct contact with the classroom

to develop pedagogical skills. Perchance the growth between the pre- and mid- administrations was less than the growth between the mid- and post- administrations because student teachers were still in the orientation and participation stages of student teaching and therefore were not engaged enough with the classroom to truly develop skills.

Several implications arise from this conclusion. If time is as valuable to growth as this study showed, then student teachers who participate in shorter student teaching internships will struggle to reach the maturation stage. This shortened time could also stunt professional growth because student teachers may not complete enough experiential learning cycles to develop at a deeper level. Another implication could be if student teachers are not provided with enough teaching practice because of absence from the classroom for other job related activities, they may not develop the necessary skills to manage their own classroom learning in the near future (Robinson et al., 2010; Torres & Ulmer, 2007).

Conclusion 8: Cooperating teachers only recognize their student teacher's growth in the facilitator role.

Agricultural education reports that cooperating teachers have the most substantial impact on the growth of student teachers (Garton & Cano, 1996). Norris et al. (1990) found that cooperating teachers are selected based on their ability to devote time to providing feedback to student teachers. This study found that cooperating teachers only reported growth in the facilitator role. Kolb (2015) described the facilitator role as follows:

educators help learners get in touch with their personal experience and reflect on it. They adopt a warm affirming style to draw out learners' interests, intrinsic motivation, and self-knowledge. They often do this by facilitating conversation in small groups. They create personal relationships with learners. (p. 304)

Could it be that because importance and competence for this role grew considerably between the mid- and post- administration that cooperating teachers saw their student teachers increased use of this role?

Another explanation for the lack of growth reported through authentic assessment could be that cooperating teachers are not providing true authentic feedback. All authentic assessment scores were substantially higher than both scores provided by their student teachers. Norris et al. (1990) found that cooperating teachers believed they provided quality feedback, however, several other research studies have reported differently. Edgars et al. (2011) found that cooperating teachers are lenient with their feedback and often are effected by the halo effect- seeing their student teacher in a positive light because they get along. Perhaps despite the fact agricultural educators commonly identify as coaches, they seem to struggle with providing feedback. Edgar et al. (2011) recommended providing cooperating teachers with in-service instruction on proper methods of providing feedback to student teachers during the student teaching experience.

This conclusion has several implications. First, if cooperating teachers are only seeing growth in the facilitator role, then student teaching may not be as affective in growing skills related to each role shown by reported perceived competence. Another implication could arise if the reason for lack of growth was actually caused by inauthentic assessment scores. If cooperating teachers are not providing constructive feedback and instead are just reporting high scores, student teachers are not receiving the mentoring and in-the-moment instruction that leads to improvement. This could lead to a lack of preparation and would lead to universities certifying ill-prepared future educators.

Recommendations for Praxis

Based on the findings of this study, the following recommendations were presented for consideration by teacher educators in agricultural education:

1. Student teacher preparation programs need to provide additional opportunities to connect with the agricultural to improve their agricultural content knowledge and experience bases. Student teachers do not believe they are competent experts, nor do they feel it is important for them to be an expert. This perception, coupled with limited agricultural experiences, results in student teachers who may lack passion for agriculture as a content area. Teacher preparation programs need to provide opportunities for student teachers to become passionate about agricultural knowledge and skills while also developing the pedagogical skills to teach the content. Perhaps knowledge and skills about agriculture can be delivered through internships in the agricultural industry in addition to the student teaching experience student teachers currently complete. This opportunity would allow student teachers to feel more connected to their content and could lead to higher efficacy when teaching agricultural content.
2. To increase importance and competence in the expert role, collegiate agricultural education course requirements also should be considered. Currently, many agriculture teacher preparation programs require courses in a variety of agriculturally related subjects such as animal science, horticulture, agricultural mechanization and agricultural economics, to name a few. Consequently, student agricultural education teachers are introduced to a variety of subjects, without the opportunity to study any one at great depth. As such, future agriculture teachers may lack efficacy in agricultural content. Providing student teachers with opportunities for depth in agricultural knowledge could lead to a deeper understanding of agricultural content that would translate to their ability to teach that content.
3. Teacher preparation programs should incorporate content knowledge into agricultural education courses to demonstrate how to translate content knowledge to the classroom.

This approach could increase passion for agriculture through exposure, importance through providing relevance, and competence through practice (Shulman, 1986).

4. Student teaching should focus on developing roles of lower initial competence. By initially identifying and developing roles, student teachers could actively practice and develop balance in their competence for each educator role.
5. Teacher preparation programs should establish importance for all educator roles with their student teachers before their student teaching experience. Establishing importance would create a felt need to develop competence. Then, longitudinal studies could track a student's progress from inception to the program to the student teaching experience.
6. Evaluation of student teachers should include perceived importance and competence for each of the experiential educator roles. Self-evaluation of skills allows learners to identify gaps on their own and creates a need for narrowing gaps between what they believe should be and how they perceive the current situation (Boyatzis & Kolb, 1997).
7. Student teachers should be aware of their gaps in importance and competence prior to student teaching to promote self-awareness and self-evaluation. Beginning the student teaching experience with an understanding of their current skills for utilizing experiential learning may allow for immediate opportunities for growth.
8. Teacher preparation should help student teachers incorporate all experiential learning cycle phases (Kolb, 2015) and their corresponding educator roles (Kolb et al., 2014).
9. Teacher preparation programs should use longer student teaching experiences, 12-15 weeks rather than 6-8 weeks, to allow student teachers to reach the maturation stage of growth and truly have the opportunity to hone their skills (Schuman, 1969).

10. Cooperating teachers should be provided with in-service training by teacher preparation programs. This in-service should clearly outline expectations and provide strategies for feedback. Cooperating teachers need training in educator role skills to evaluate these measures effectively.
11. Teacher preparation programs should provide support for the needs of their student teaching cohort throughout the student teaching experience. The use of seminars or in-service opportunities should directly reflect the needs of the cohort.

Recommendations for Research

Though this study provided conclusions related to the stated research objectives, a number of research questions arose as a product of this study. These research questions include:

1. What previous knowledge and training in experiential education are student teachers receiving?
2. Are student teachers incorporating all experiential educator roles in conjunction with phases of the experiential learning cycle into their lessons?
3. Do teacher preparation courses that teach instructional methodology develop the experiential educator roles?
4. How important do cooperating teachers rate skills related to the experiential learning roles?
5. Does teaching across the model improve student learning?
6. Does student teacher awareness of their gaps between importance and competence further facilitate growth in experiential educator roles?

7. How is experiential learning and the facilitation of this cycle currently evaluated during student teaching?
8. Are knowledge and application of knowledge increased when all four educator roles are intentionally incorporated into a lesson?
9. Does teacher evaluation become more critical if cooperating teachers receive in-service training on the skills associated with being an experiential educator?
10. What skills specific to agricultural education fall under each experiential educator role?
11. Does authentic assessment change if provided by the university supervisor rather than the cooperating teacher?
12. How important do cooperating teachers perceive experiential educator skills in relations to their career?
13. Do cooperating teachers model teaching across the ELT (Kolb, 2015) model?
14. What needs do cooperating teachers perceive their student teachers have throughout the semester?
15. Does the ERP (Kolb et al., 2014) align with administration expectations of the agriculture teacher?
16. How does the ERP align with current evaluation models such as the Tulsa or Marzano models?
17. When do agricultural educators stop growing in their ERP?

Concluding Remarks

Student teaching in agricultural education begins the process of developing perceived importance and competence and helps balance experiential educator roles. As stated by Kolb (2015), educator roles allow teachers to engage students in all four modes of experiential learning and cater to different learning styles. Balance among role preference is ideal to facilitate quality and meaningful experiential lessons (Kolb, 2015). Educators can “develop the flexibility to use all roles and styles to create a more powerful and effective process of teaching and learning” (Kolb, 2015, p. 306). Kolb et al. (2014) described the development of roles through intentional practice. Baker and Twenter (2016) recommended teacher preparation programs play an active role in the development of experiential roles in preservice teachers. Steinaker and Bell (1979) described the educator’s function in the connection between theory and practice.

Learner achievement can be augmented when [experiential learning] is keyed in a curriculum to a series of taxonomically sequenced teaching strategies and learning experiences. Using the experiential taxonomy, a teacher can plan an experience with a specific objective, a series of taxonomically ordered activities keyed to identified teaching strategies, and with correlated elements of creativity, critical thinking, and problem solving. (Steinaker & Bell, 1979, p. xi)

If agricultural education is truly experiential, educators in this field need to take ownership of and actively engage in the creation and facilitation of experiential learning.

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APPENDICES

APPENDIX A:

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

Oklahoma State University Institutional Review Board

Date: Tuesday, January 12, 2016
IRB Application No AG1560
Proposal Title: The role of student teaching in balancing preservice teacher's educator role profile
Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 1/11/2019

Principal Investigator(s):

Krysti Kelley Marshall A. Baker
458 Ag Hall
Stillwater, OK 74078 Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

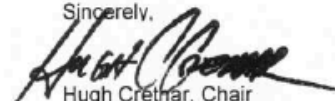
- The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,



Hugh Crethar, Chair
Institutional Review Board

APPENDIX B:
UNIVERSITY SUPERVISOR RECRUITMENT SCRIPTS

Recruitment Scripts

Initial University Supervisor Recruitment Script

Phone

Hello my name is Krysti Kelley and I am a graduate student with Oklahoma State University. I am working on research project involving student teachers and would like to ask your university to participate. This study would ask that any of your student teachers who are willing to participate to fill out complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask your student teachers to rate the importance and their perceived skill level for skills related to being an agricultural educator. They will be asked to complete this questionnaire three times: at the beginning, middle and end of their student teaching experience. It will also ask their cooperating teachers to complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask them to rate their student teachers' skill level for skills related to being an agricultural educator. They will be asked to complete this questionnaire two times: at the middle and end of the student teaching experience. If you are willing to help us recruit students, a recruitment script will be provided. Thank you for your time and consideration.

Email

Email

Dr. _____,

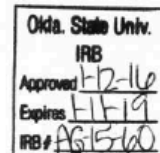
Hello, I am working on research project involving student teachers and would like to ask your university to participate. This study would ask that any of your student teachers who are willing to participate to fill out complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask your student teachers to rate the importance and their perceived skill level for skills related to being an agricultural educator. They will be asked to complete this questionnaire three times: at the beginning, middle and end of their student teaching experience. It will also ask their cooperating teachers to complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask them to rate their student teachers' skill level for skills related to being an agricultural educator. They will be asked to complete this questionnaire two times: at the middle and end of the student teaching experience. If you are willing to help us recruit students, a recruitment script will be provided. Thank you for your time and consideration.

Sincerely,

Krysti Kelley

Oklahoma State University

Graduate Student



APPENDIX C:
RECRUITMENT EMAIL FOR UNIVERSITY SUPERVISORS TO RECRUIT
STUDENT TEACHERS

Recruitment Email for University Supervisors to Recruit Cooperating Teachers

Krysti Kelley is a graduate student with Oklahoma State University who is working on research project involving student teachers and would like to ask you to participate. Your participation is voluntary. There are no penalty for refusal to participate, and you free to withdraw your consent and participation in this project at any time, without penalty. The purpose of this study is to determine if student teaching increases a preservice teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles. You are being asked to participate because your participation will help us identify how the current practices of student teaching preparing agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate your student teacher's skill level for skills related to being an agricultural educator. You will be asked to complete this questionnaire two times: at the middle and end of your student teacher's experience. The questionnaire will be distributed via email and a follow-up email will be sent as a reminder. The records of this study will be kept private. You will be assigned a number so that we can track your data over time. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records. Thank you for your time and consideration. If you would like to participate a link to the survey will be provided in an email from the researcher.

Oklahoma State Univ.
IRB
Approved 1-12-16
Expires 11-19
IRB # P21510

APPENDIX D:
RECRUITMENT EMAIL FOR UNIVERSITY SUPERVISORS TO RECRUIT
COOPERATING TEACHERS

Recruitment Email for University Supervisors to Recruit Cooperating Teachers

Krysti Kelley is a graduate student with Oklahoma State University who is working on research project involving student teachers and would like to ask you to participate. Your participation is voluntary. There are no penalty for refusal to participate, and you free to withdraw your consent and participation in this project at any time, without penalty. The purpose of this study is to determine if student teaching increases a preservice teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles. You are being asked to participate because your participation will help us identify how the current practices of student teaching preparing agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate your student teacher's skill level for skills related to being an agricultural educator. You will be asked to complete this questionnaire two times: at the middle and end of your student teacher's experience. The questionnaire will be distributed via email and a follow-up email will be sent as a reminder. The records of this study will be kept private. You will be assigned a number so that we can track your data over time. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records. Thank you for your time and consideration. If you would like to participate a link to the survey will be provided in an email from the researcher.

Oklahoma State Univ.
IRB
Approved 1-12-16
Expires 11-19
IRB # 1505160

APPENDIX E:
STUDENT TEACHER CONSENT FORMS

ADULT CONSENT FORM- STUDENT TEACHERS
OKLAHOMA STATE UNIVERSITY

Project Title: The Role of Student Teaching in Balancing Preservice Teacher's Educator Role Profile

Investigators: Krysti Kelley, Graduate Student, Oklahoma State University
Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate the importance and your perceived competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate the importance and your perceived competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire three times: at the beginning, middle and end of your student teaching experience. Your cooperating teachers will also be asked to fill out an evaluation form of your performance for each of these skills. This evaluation will not affect your grade or be shared with your university supervisor. Evaluations will only be seen by the researcher and used for growth comparisons.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your name solely for the purpose of longitudinally comparing data. After all data is collected, you will be assigned a number so that we can track your data over time and your name will be removed. This number

Oklahoma State Univ.
IRB
Approved <u>HZ-16</u>
Expires <u>1-11-19</u>
IRB # <u>AG-5-60</u>

will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

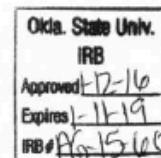
Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.



APPENDIX F:
COOPERATING TEACHER CONSENT FORMS

ADULT CONSENT FORM- COOPERATING TEACHERS

OKLAHOMA STATE UNIVERSITY

Project Title: The Role of Student Teaching in Balancing Preservice Teacher's Educator Role Profile

Investigators: Krysti Kelley, Graduate Student, Oklahoma State University

Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate your student teacher's competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate your student teacher's competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire two times: at the middle and end of your student teachers experience.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your student teachers name in order to match their data with yours. After all data is collected, a number will be assigned so that we can track the combined data over time and their name will be removed. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

Okla. State Univ.
IRB
Approved <u>1/2-16</u>
Expires <u>1/1/19</u>
IRB # <u>AG-15-120</u>

Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.

Oklahoma State Univ.
IRB
Approved 1-12-16
Expires 1-11-19
IRB # AG-15100

APPENDIX G:
STUDENT TEACHER PRE-ADMINISTRATION SURVEY INSTRUMENT

**ADULT CONSENT FORM- STUDENT TEACHERS
OKLAHOMA STATE UNIVERSITY**

Project Title: The Role of Student Teaching in Balancing Preservice Teacher's Educator Role Profile

Investigators: Krysti Kelley, Graduate Student, Oklahoma State University

Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate the importance and your perceived competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate the importance and your perceived competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire three times: at the beginning, middle and end of your student teaching experience. Your cooperating teachers will also be asked to fill out an evaluation form of your performance for each of these skills. This evaluation will not affect your grade or be shared with your university supervisor. Evaluations will only be seen by the researcher and used for growth comparisons.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your name solely for the purpose of longitudinally comparing data. After all data is collected, you will be assigned a number so that we can track your data over time and your name will be removed. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.

PART I – Pedagogical Skills

Please respond to the following items by **selecting the response** that most adequately reflects your perception of the importance of the skill and your perceived level of competence at performing the skill.

In the **LEFT column**, indicate how important you believe the corresponding skills are to the success of your occupation. In the **RIGHT column**, indicate your perceived level of competence at performing the corresponding skills.

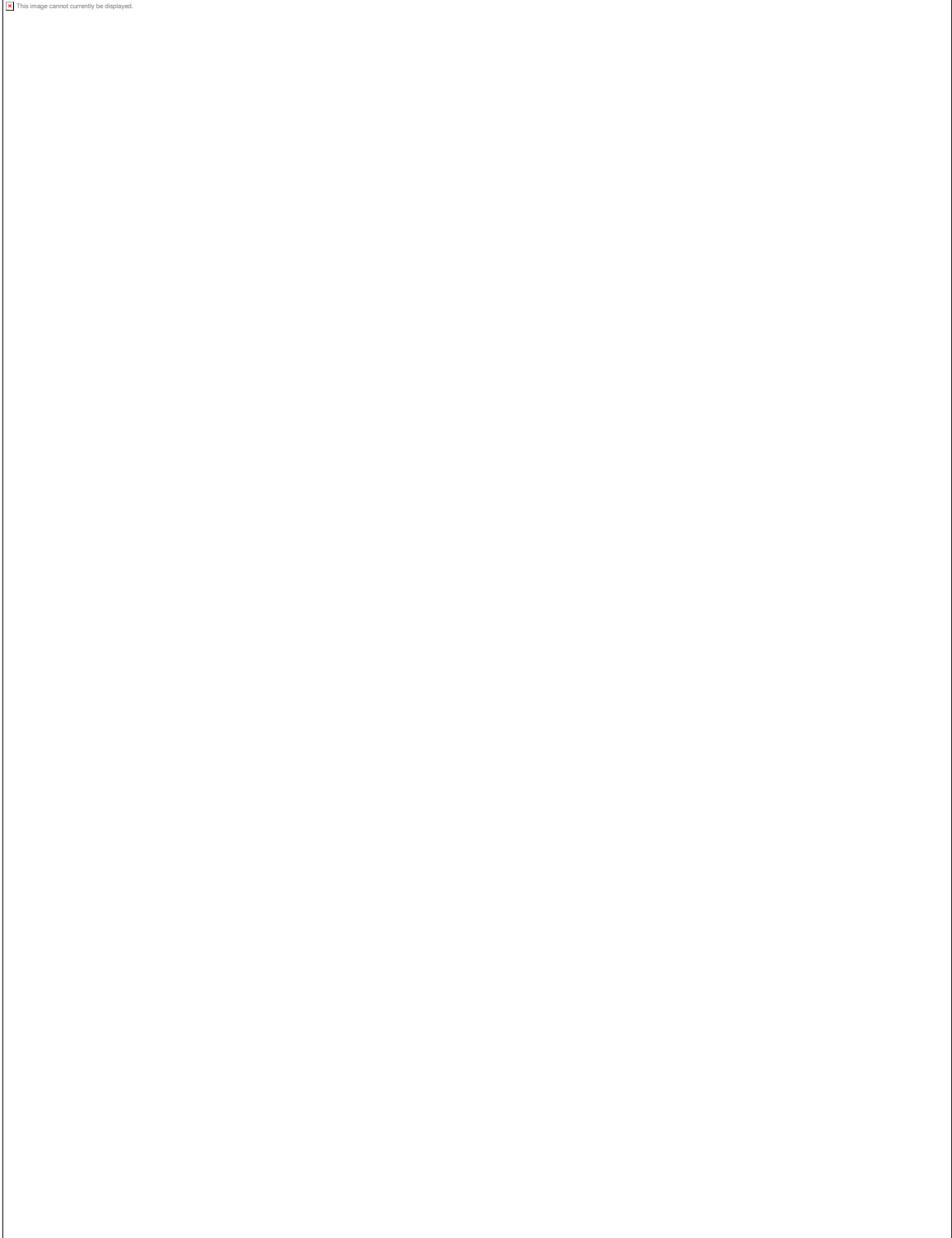
	Importance				Competence			
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I use personal stories and experiences to help learners understand the meaning of a concept	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I communicate my subject matter expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage conversation among learners so that they can understand others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deliver learning in a real life context	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I aim for learners to develop a lifelong love of learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use objective tests to evaluate learners' understanding of a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deliver concepts and theories through well organized lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I emphasize the								

	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
application of learning in the real world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I question learners about their understanding of a concept to correct mistaken ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I outline step-by-step procedures for solving problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners build commitment to achieving personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' understanding of their values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learner's problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to read the literature about a subject critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to be creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use role plays and other simulations for learners to practice skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' empathic understanding of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I establish standards and criteria for student performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I model by	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

demonstration how to think about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use field projects for learners to apply knowledge in real life situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide a focused environment to analyze ideas in a disciplined way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide opportunities for practice and feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners develop a concern about social issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I advise learners about the performance requirements of their chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a subject matter expert role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I encourage learners to create alternative solutions and ways of looking at a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to apply learning in their life and work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

of others' points of view									
I develop learners' ability to evaluate costs and benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' knowledge and expertise in my subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to manage time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I teach methods for critical analysis of ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' skill in using the required materials, tools or technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' skill in planning and organizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I encourage learners to pursue the development of their interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I prepare learners for jobs and careers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I model by demonstration how an expert thinks about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I show learners that I am a caring person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I help learners apply what they have learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I provide a safe space for learners to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

talk about their thoughts and feelings									
I am an objective evaluator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I demonstrate my subject matter knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I design educational programs that focus on practice and application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I design educational programs based on the key concepts of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I encourage learners to adhere to rules and procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I take a coaching role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I design an educational program around the learner's interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I design an educational program that sets clear procedures and standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I am logical in my teaching design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I encourage learners to come up with creative ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I provide opportunities for "hands-on" learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I use group discussion for learners to reflect on their experience about a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



How many years of High School agricultural classes did you take?

How would you describe your agricultural background?

- I grew up in a farming family
- My family farms but it is not our main source of income
- My family appreciates and understands agriculture but is not actively involved
- My family does not have an agricultural background

FFA/ Collegiate Involvement

Please describe your involvement level for each of the following activities

	Not involved	Moderate Involvement	Heavily Involved
FFA contests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FFA officer positions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SAE projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibited Livestock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High School agricultural classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FFA Conventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FFA conferences/camps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collegiate FFA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collegiate Judging Teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collegiate Agricultural Leader Positions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collegiate Agricultural Clubs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX H:
STUDENT TEACHER MID-ADMINISTRATION SURVEY INSTRUMENT

**ADULT CONSENT FORM- STUDENT TEACHERS
OKLAHOMA STATE UNIVERSITY**

Project Title: The Role of Student Teaching in Balancing Preservice Teacher's Educator Role Profile
Investigators: Krysti Kelley, Graduate Student, Oklahoma State University
Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher's perceived importance, perceived competence and authentic assessment of skills categorized under Kolb's four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate the importance and your perceived competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate the importance and your perceived competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire three times: at the beginning, middle and end of your student teaching experience. Your cooperating teachers will also be asked to fill out an evaluation form of your performance for each of these skills. This evaluation will not affect your grade or be shared with your university supervisor. Evaluations will only be seen by the researcher and used for growth comparisons.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your name solely for the purpose of longitudinally comparing data. After all data is collected, you will be assigned a number so that we can track your data over time and your name will be removed. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.

PART I – Pedagogical Skills

Please respond to the following items by **selecting the response** that most adequately reflects your perception of the importance of the skill and your perceived level of competence at performing the skill.

In the **LEFT column**, indicate how important you believe the corresponding skills are to the success of your occupation. In the **RIGHT column**, indicate your perceived level of competence at performing the corresponding skills.

	Importance				Competence			
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I use personal stories and experiences to help learners understand the meaning of a concept	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I communicate my subject matter expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage conversation among learners so that they can understand others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deliver learning in a real life context	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I aim for learners to develop a lifelong love of learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use objective tests to evaluate learners' understanding of a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deliver concepts and theories through well organized lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I emphasize the								

application of learning in the real world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I question learners about their understanding of a concept to correct mistaken ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I outline step-by-step procedures for solving problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners build commitment to achieving personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' understanding of their values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learner's problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to read the literature about a subject critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to be creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use role plays and other simulations for learners to practice skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' empathic understanding of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I require learners to meet the standards and criteria I establish for performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I model by demonstration how to think about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use field projects for learners to apply knowledge in real life situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide a focused environment to analyze ideas in a disciplined way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide opportunities for practice and feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners develop a concern about social issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I advise learners about the performance requirements of their chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a subject matter expert role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I encourage learners to create alternative solutions and ways of looking at a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to apply learning in their life and work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners'									

understanding of others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to evaluate costs and benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' knowledge and expertise in my subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to manage time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I teach methods for critical analysis of ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' skill in using the required materials, tools or technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' skill in planning and organizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I encourage learners to pursue the development of their interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prepare learners for jobs and careers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I model by demonstration how an expert thinks about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I show learners that I am a caring person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners apply what they have learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide a safe space for									

learners to talk about their thoughts and feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am an objective evaluator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I demonstrate my subject matter knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design educational programs that focus on practice and application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I design educational programs based on the key concepts of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to adhere to rules and procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a coaching role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design an educational program around the learner's interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design an educational program that sets clear procedures and standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am logical in my teaching design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to come up with creative ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide opportunities for "hands-on" learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use group discussion for learners to reflect on their experience about a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

subject	Importance				Competence			
	No	Minor	Moderate	Major	No	Minor	Moderate	Major
I set standards and evaluate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I relate to learners on an intellectual level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I coach learners individually to help them achieve their goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design an educational program around the basic principles of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I focus on performance outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to take risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What skills are important to the success of your job that have NOT been included in this study?

Name

APPENDIX I:
STUDENT TEACHER POST-ADMINISTRATION SURVEY INSTRUMENT

**ADULT CONSENT FORM- STUDENT TEACHERS
OKLAHOMA STATE UNIVERSITY**

Project Title: The Role of Student Teaching in Balancing Preservice Teacher’s Educator Role Profile

Investigators: Krysti Kelley, Graduate Student, Oklahoma State University

Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher’s perceived importance, perceived competence and authentic assessment of skills categorized under Kolb’s four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate the importance and your perceived competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate the importance and your perceived competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire three times: at the beginning, middle and end of your student teaching experience. Your cooperating teachers will also be asked to fill out an evaluation form of your performance for each of these skills. This evaluation will not affect your grade or be shared with your university supervisor. Evaluations will only be seen by the researcher and used for growth comparisons.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your name solely for the purpose of longitudinally comparing data. After all data is collected, you will be assigned a number so that we can track your data over time and your name will be removed. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.

PART I – Pedagogical Skills

Please respond to the following items by **selecting the response** that most adequately reflects your perception of the importance of the skill and your perceived level of competence at performing the skill.

In the **LEFT column**, indicate how important you believe the corresponding skills are to the success of your occupation. In the **RIGHT column**, indicate your perceived level of competence at performing the corresponding skills.

	Importance					Competence			
	No	Minor	Moderate	Major		No	Minor	Moderate	Major

	Importance	Importance	Importance	Importance	Competence	Competence	Competence	Competence
I use personal stories and experiences to help learners understand the meaning of a concept	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I communicate my subject matter expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage conversation among learners so that they can understand others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deliver learning in a real life context	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I aim for learners to develop a lifelong love of learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use objective tests to evaluate learners' understanding of a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deliver concepts and theories through well organized lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I emphasize the application of learning in the real world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I question learners about their understanding of a concept to correct mistaken ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I outline step-by-step procedures for solving problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners								

build commitment to achieving personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' understanding of their values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learner's problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to read the literature about a subject critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to be creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use role plays and other simulations for learners to practice skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' empathic understanding of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I require learners to meet the standards and criteria I establish for performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I model by demonstration how to think about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use field projects for learners to apply knowledge in real life situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide a focused environment to analyze ideas in a disciplined way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide opportunities									

for practice and feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners develop a concern about social issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I advise learners about the performance requirements of their chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a subject matter expert role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence	
I encourage learners to create alternative solutions and ways of looking at a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to apply learning in their life and work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' understanding of others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to evaluate costs and benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' knowledge and expertise in my subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' ability to manage time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I teach methods for critical analysis of ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' skill in using the required materials, tools or technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I develop learners' skill in planning and organizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I encourage learners to pursue the development of their interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prepare learners for jobs and careers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I model by demonstration how an expert thinks about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I show learners that I am a caring person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help learners apply what they have learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide a safe space for learners to talk about their thoughts and feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am an objective evaluator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I demonstrate my subject matter knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design educational programs that focus on practice and application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
I design educational programs based on the key concepts of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to adhere to rules and procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a coaching role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design an educational program around the learner's interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design an educational program that sets clear procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	No Importance	Minor Importance	Moderate Importance	Major Importance	No Competence	Minor Competence	Moderate Competence	Major Competence
procedures and standards								
I am logical in my teaching design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to come up with creative ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide opportunities for "hands-on" learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use group discussion for learners to reflect on their experience about a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I set standards and evaluate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I relate to learners on an intellectual level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I coach learners individually to help them achieve their goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design an educational program around the basic principles of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I focus on performance outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage learners to take risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What skills are important to the success of your job that have NOT been included in this study?

Part II- Demographic Data

Name

Please rate the following items by selecting the responses that best describes the contribution each of the individual(s) listed made on your teaching knowledge (left column) and your agricultural knowledge (right column). If there is an item listed that you were not directly influenced by, please select NA (Not Applicable).

	Teaching Knowledge					Agricultural Knowledge				
	No Contribution	Minor Contribution	Moderate Contribution	Major Contribution	Not Applicable	No Contribution	Minor Contribution	Moderate Contribution	Major Contribution	Not Applicable
High School Ag Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
University Teacher Preparation Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cooperating Teacher(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX J:
COOPERATING TEACHER MID-ADMINISTRATION SURVEY INSTRUMENT

**ADULT CONSENT- COOPERATING TEACHERS
OKLAHOMA STATE UNIVERSITY**

Project Title: The Role of Student Teaching in Balancing Preservice Teacher’s Educator Role Profile
Investigators: Krysti Kelley, Graduate Student, Oklahoma State University
Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher’s perceived importance, perceived competence and authentic assessment of skills categorized under Kolb’s four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate your student teacher’s competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate your student teacher’s competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire two times: at the middle and end of your student teachers experience.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your student teachers name in order to match their data with yours. After all data is collected, a number will be assigned so that we can track the combined data over time and their name will be removed. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.

Pedagogical Skills- Part I

Please respond to the following items by selecting the response that most adequately reflects your perception of your student teachers level of competence at performing each skill.

	No Competence	Minor Competence	Moderate Competence	Major Competence
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My student teacher uses personal stories and experiences to help learners understand the meaning of a concept	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher creates a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher communicates their subject matter expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages conversation among learners so that they can understand others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher delivers learning in a real life context	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher aims for learners to develop a lifelong love of learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses objective tests to evaluate learners' understanding of a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher delivers concepts and theories through well organized lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher emphasizes the application of learning in the real world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher questions learners about their understanding of a concept to correct mistaken ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher outlines step-by-step procedures for solving problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher helps learners build commitment to achieving personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' understanding of their values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learner's problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages learners to read the literature about a subject critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to be creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses role plays and other simulations for learners to practice skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' empathic understanding of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher requires learners to meet the standards and criteria they establish for performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher models by demonstration how to think about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses field projects for learners to apply knowledge in real life situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher provides a focused environment to analyze ideas in a disciplined way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher creates a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher provides opportunities for practice and feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher helps learners develop a concern about social issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher advises learners about the performance requirements of their chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher takes a subject matter expert role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher encourages learners to create alternative solutions and ways of looking at a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to apply learning in their life and work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' understanding of others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to evaluate costs and benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' knowledge and expertise in their subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to manage time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher teaches methods for critical analysis of ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' skill in using the required materials, tools or technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops				

learners' skill in planning and organizing

No Competence Minor Competence Moderate Competence Major Competence

My student teacher encourages learners to pursue the development of their interests

My student teacher prepares learners for jobs and careers

My student teacher models by demonstration how an expert thinks about a topic

My student teacher shows learners that I am a caring person

My student teacher helps learners apply what they have learned

My student teacher provides a safe space for learners to talk about their thoughts and feelings

My student teacher is an objective evaluator

My student teacher demonstrates their subject matter knowledge

My student teacher designs educational programs that focus on practice and application

No Competence Minor Competence Moderate Competence Major Competence

My student teacher designs educational programs based on the key concepts of the subject

My student teacher encourages learners to adhere to rules and procedures

My student teacher takes a coaching role with learners

My student teacher designs an educational program around the learner's interests

My student teacher designs an educational program that sets clear procedures and standards

My student teacher is logical in their teaching design

My student teacher encourages learners to come up with creative ideas

My student teacher provides opportunities for "hands-on" learning

My student teacher uses group discussion for learners to reflect on their experience about a subject

	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher sets standards and evaluates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher relates to learners on an intellectual level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher coaches learners individually to help them achieve their goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher designs an educational program around the basic principles of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher focuses on performance outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages learners to take risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Demographic Information- Part II

Student Teacher's Name

Your Age

Your Sex

Number of Years You Have Been Teaching Agriculture

APPENDIX K:
COOPERATING TEACHER POST-ADMINISTRATION SURVEY INSTRUMENT

**ADULT CONSENT- COOPERATING TEACHERS
OKLAHOMA STATE UNIVERSITY**

Project Title: The Role of Student Teaching in Balancing Preservice Teacher’s Educator Role Profile

Investigators: Krysti Kelley, Graduate Student, Oklahoma State University

Dr. Marshall Baker, Professor, Oklahoma State University

Purpose:

The purpose of this study is to determine if student teaching increases a preservice teacher’s perceived importance, perceived competence and authentic assessment of skills categorized under Kolb’s four educator roles.

You are being asked to participate because your participation will help us identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

You will be asked to rate your student teacher’s competence level for skills related to being an agricultural educator.

Procedures:

You will complete one questionnaire which will take approximately 15-20 minutes. The questionnaire will ask you to rate your student teacher’s competence level for skills related to being an agricultural educator. You will be asked to complete this questionnaire two times: at the middle and end of your student teachers experience.

Risk of Participation:

There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits:

This data will help identify how the current practices of student teaching prepare agricultural educators to teach experientially. It will also identify important skills that teacher preparation programs can develop and improve in the future.

Confidentiality:

The records of this study will be kept private. You will be asked to provide your student teachers name in order to match their data with yours. After all data is collected, a number will be assigned so that we can track the combined data over time and their name will be removed. This number will not be disclosed in any manuscripts or presentations. All research records will be stored on a password protected computer in a locked office and only the researchers will have access to the records.

Contacts:

You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Krysti Kelley, 459 Ag Hall, Dept. Agricultural Education, Communications and Leadership of Oklahoma State University, Stillwater, OK 74078, (405) 744-2972. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Participant Rights:

I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

By moving forward, you are agreeing to participate in this study.

Pedagogical Skills- Part I

Please respond to the following items by selecting the response that most adequately reflects your perception of your student teachers level of competence at performing each skill.

	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher uses				

personal stories and experiences to help learners understand the meaning of a concept	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher creates a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher communicates their subject matter expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages conversation among learners so that they can understand others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher delivers learning in a real life context	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher aims for learners to develop a lifelong love of learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses objective tests to evaluate learners' understanding of a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher delivers concepts and theories through well organized lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher emphasizes the application of learning in the real world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher questions learners about their understanding of a concept to correct mistaken ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher outlines step-by-step procedures for solving problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher helps learners build commitment to achieving personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' understanding of their values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learner's problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages learners to read the literature about a subject critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to be creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses role plays and other simulations for learners to practice skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' empathic understanding of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence

My student teacher requires learners to meet the standards and criteria they establish for performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher models by demonstration how to think about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses field projects for learners to apply knowledge in real life situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher provides a focused environment to analyze ideas in a disciplined way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher creates a challenging environment where learners need to demonstrate quality work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher provides opportunities for practice and feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher helps learners develop a concern about social issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher advises learners about the performance requirements of their chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher takes a subject matter expert role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher encourages learners to create alternative solutions and ways of looking at a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to apply learning in their life and work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' understanding of others' points of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to evaluate costs and benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' knowledge and expertise in their subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' ability to manage time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher teaches methods for critical analysis of ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' skill in using the required materials, tools or technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher develops learners' skill in planning and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

organizing

	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher encourages learners to pursue the development of their interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher prepares learners for jobs and careers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher models by demonstration how an expert thinks about a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher shows learners that I am a caring person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher helps learners apply what they have learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher provides a safe space for learners to talk about their thoughts and feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher is an objective evaluator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher demonstrates their subject matter knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher designs educational programs that focus on practice and application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence
My student teacher designs educational programs based on the key concepts of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages learners to adhere to rules and procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher takes a coaching role with learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher designs an educational program around the learner's interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher designs an educational program that sets clear procedures and standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher is logical in their teaching design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages learners to come up with creative ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher provides opportunities for "hands-on" learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher uses group discussion for learners to reflect on their experience about a subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	No Competence	Minor Competence	Moderate Competence	Major Competence

My student teacher sets standards and evaluates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher relates to learners on an intellectual level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher coaches learners individually to help them achieve their goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher designs an educational program around the basic principles of the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher focuses on performance outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My student teacher encourages learners to take risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Student Teacher's Name

VITA

Krysti L. Kelley

Candidate for the Degree of

Master of Science

Thesis: THE ROLE OF STUDENT TEACHING IN BALANCING
PRESERVICE TEACHERS' EDUCATOR ROLE PROFILE

Major Field: Agricultural Education

Biographical:

Education:

Completed the requirements for the Master of Science in Agricultural Education at Oklahoma State University, Stillwater, Oklahoma in May, 2017.

Completed the requirements for the Bachelor of Science in Interdisciplinary Agriculture at Texas Tech University, Lubbock, TX in 2015.

Experience:

Graduate Teaching Assistant, Oklahoma State University (August 2015- May 2017).

Assistant Director, McKnight Scholars Leader Program (August 2015-May 2017).

Student Teacher, Buena Park High School (January 2015- May 2015).

Professional Memberships:

American Association of Agricultural Educator: Student Member, 2016-present

National Association of Agricultural Educators: Student Member, 2015- present