Preservice Candidates' Rating of Effectiveness in Agricultural Education through Structured Communication with Cooperating Teachers

Christopher Lee Hunt
University of Arkansas, Fayetteville

Follow this and additional works at: https://scholarworks.uark.edu/etd

Part of the Agricultural Education Commons, and the Educational Leadership Commons

Citation

This Thesis is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of ScholarWorks@UARK. For more information, please contact scholar@uark.edu.
Preservice Candidates’ Rating of Effectiveness in Agricultural Education through Structured Communication with Cooperating Teachers
Preservice Candidates’ Rating of Effectiveness in Agricultural Education through Structured Communication with Cooperating Teachers

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Agricultural and Extension Education

Christopher Lee. Hunt
University of Arkansas
Bachelor of Science in Agricultural Communication, Education, and Technology, 2011

December 2013
University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

Dr. Don W. Edgar
Thesis Committee Chair

Dr. Catherine W. Shoulders
Committee Member

Dr. Karee E. Dunn
Committee Member
ABSTRACT

The relationship between cooperating teacher and student has been found as one of the key elements that affect the overall teaching efficacy of student teachers and their decision to enter the teaching field after graduation (Edgar, 2007; Edgar, Roberts, & Murphy, 2011,2008; Kasperbauer et al., 2007a; Roberts, Greiman, Murphy, Ricketts, Harlin, & Briers 2009; Roberts, Harlin, & Briers, 2007, Roberts, Harlin, & Ricketts, 2006; Roberts Mowen, Edgar, Harlin & Briers, 2007, Stripling, Ricketts, Roberts & Harlin, 2008; Wolf, 2011; Wolf et al., 2010).

Therefore, determining impacts towards teaching efficacy during the student teaching experience could play a vital role in future teachers’ success. The purpose of this study was to assess teaching efficacy and the relationship between student teacher and cooperating teacher through a structured communication instrument at multiple universities.

Data was collected from participants of this study on three variables; teaching efficacy, communication, and relationship. Data to address teaching efficacy was collected during the 2012 and 2013 spring semester at two universities {University of Arkansas (N = 27) and the University of Georgia (N = 32)}. To determine if a difference existed between universities based on teaching efficacy an ANOVA was used. The overall model was not significant (Between Groups, $f = .568$ and $p = .687$). The null hypothesis was accepted. To determine if a difference existed in student teachers perceptions bet multiple universities towards teaching an ANOVA was used. The overall model was not significant (Between Groups, $f = 1.631$ and $p = .180$). The null hypothesis was accepted. To determine if there was difference in teaching efficacy and student teachers/cooperating teacher relationship a MANOVA was used to test the hypothesis. The overall model was not significant therefore the null hypothesis was retained. Further
research should be conducted to see the direct effects of the behaviors, personal factors, and the environment of preservice teaching. It is also suggested that future research be conducted to define the specifics of the behavioral factors, environmental, and personal factors in terms of agriculture education.
ACKNOWLEDGMENTS

The deepest gratitude goes out to the University of Arkansas Agricultural and Extension Education Department for providing the assistantship which funded my graduate work. The department’s faculty, staff, and students seem more like family than professors. Thank you.

I would also thank Dr. Don Edgar for his continued guidance throughout this whole process and for chairing this thesis committee. He constantly challenged me to put my best effort forth and try my hardest. He was there to encourage me when need but also brought me to realization when needed. He has been a true privilege getting to work with Dr. Don Edgar on this project and as my advisor for undergraduate and graduate school.

I would also like to thank Dr. Catherine W. Shoulders and Dr. Karee E. Dunn for sitting on my thesis committee. Your constant guidance and advice throughout my thesis had truly added value and motivation to my life as well as my thesis. Your continued support when times were challenging was greatly appreciated and made me truly grow as a human. I would also like to thank Dr. Denis Duncan at the University of Georgia for the being the lead researcher at his campus. He has played a vital role in this multi-university study. Gratitude is also extended to Oklahoma State University along with Dr. John Edwards for being the lead professor at his respected university and his effort was greatly appreciated.

Finally I would like to thank the Arkansas Soybean Promotion for the finical support to continue my education. The opportunity to conduct research for your organization has been a true blessing and I have made several networking opportunities with your organization. The continued support of the Soybean research with the department of agricultural and extension education would be greatly appreciated.
DEDICATION

This thesis is dedicated to my wife, Beth Ann, which is my better half. She has stood by my side through everything. She has constantly pushed me to do my best even when I wanted to give up. She is such a godly woman that maintains a godly presence in our home and family. You are truly the best thing that has ever happened to me and I could not think of my life without you. I thank you for constantly pushing me to finish when I had chosen to give up.

It is also dedicated to my little “birdy” Riselee Ann. Even though you have not been in our lives, you are the main reason that I keep going. You have provided me something to live for and work hard to make sure you have everything you want. You have changed my world and made me grow up as an individual. I love you.

My parents James and Peggy Hunt have also provided constant support through my education. You allowed me to move 6 hours from home to better my life for my family. Your advice and guidance through life has humbled me and made me realize what is important in life. You always told me to be the best person I could and I hope I have made you proud. Thank Don and Peg Bills for opening up their home to a stranger that one day would become your son-in-law and constantly supporting me and my family. Your gratitude had not gone unnoticed and I thank you for your constant support.

*And God is faithful; he will not let you be tempted beyond what you can bear*

*1 Corinthians 10:13 NIV*
# TABLE OF CONTENTS

I. Introduction .................................................................................................................. 1
   Problem Statement ....................................................................................................... 4
   Purpose ......................................................................................................................... 5
   Key Terms ..................................................................................................................... 5
   Summary ....................................................................................................................... 7

II. Introduction .................................................................................................................. 8
    Theoretical Framework ............................................................................................... 8
    Reciprocal Determinism ............................................................................................. 8
    Social Cognitive ......................................................................................................... 9
    Self-Efficacy ............................................................................................................... 11
    Teaching Efficacy ...................................................................................................... 13
    Conceptual Framework .............................................................................................. 15
    Student Teacher Relationship .................................................................................... 15
    Motivation to Teach ................................................................................................... 16
    Structured Communication .......................................................................................... 18
    Research Questions .................................................................................................... 19
    Limitations .................................................................................................................. 20
    Assumptions ............................................................................................................... 20
    Chapter Summary ...................................................................................................... 20

III. Methodology ............................................................................................................... 22
    Research Questions .................................................................................................... 22
    Hypotheses .................................................................................................................. 22
    Null Hypotheses ......................................................................................................... 23
    Alternative Hypotheses ............................................................................................. 23
    Research Design ......................................................................................................... 23
    Internal and External Validity ..................................................................................... 24
    Demographics ............................................................................................................ 25
    Instrumentation .......................................................................................................... 26
    Communication Form ................................................................................................. 26
    Preservice Teaching Efficacy Questionnaire ............................................................. 27
    Data Collection .......................................................................................................... 28
    Procedures .................................................................................................................... 28
    Analysis of Data ......................................................................................................... 30
    Chapter Summary ...................................................................................................... 30

IV. Findings ....................................................................................................................... 32
   Demographics .............................................................................................................. 32
   Gender ............................................................................................................................ 33
LIST OF TABLES

Table

4-1. Preservice Teachers Gender..................................................................................39
4-2. Preservice Teacher Age .....................................................................................37
4-3. Preservice Teacher Ethnicity ................................................................................38
4-4. Preservice Teacher Agricultural Work Experience .............................................40
4-5. Preservice Teacher Graduation Plans ..................................................................41
4-6. Preservice Teacher Plans After Graduation .......................................................42
4-7. Preservice Teacher Willingness To Teach Agriculture Education .......................43
4-8. Preservice Teacher Willingness To Teach Per Measured Period .........................43
4-9. Overall Teaching Efficacy per University ............................................................44
4-10. Overall Perceptions of Teaching per University ..................................................45
4-11. ANOVA of Overall Teaching Efficacy ...............................................................46
4-12. ANOVA of Overall Preservice Teacher Perception of Teaching ......................46
4-13. MANOVA Analysis of Teaching Efficacy and Student Teacher/Cooperating Teacher Relationship ..................................................................................47
LIST OF FIGURES

Figures
2-1. Reciprocal Determinism Model .................................................................10
2-2. Conceptual and Theoretical Framework Model ...........................................22
CHAPTER I

Introduction

Education in agriculture (agricultural education) at the secondary level is facing a crisis due to a shortage of qualified, dedicated, and passionate teachers (Kasperbauer & Roberts, 2007a). One way to explain the teacher shortage would be to take a closer look at the preservice teaching experience to examine efficacy and what is a deciding factor in student teachers’ willingness to enter the profession (Robinson, Krysher, Haynes & Edwards, 2010). The National Council for Agricultural Education (The Council, 2002) published *Reinventing Agriculture Education for the Year 2020*. A major goal reported by this document was to supply “an abundance of highly-motivated, well-educated teachers in all disciplines, pre-kindergarten through adult, providing agricultural, food, fiber, and natural resources education” (The Council 2002, p.4).

In order to overcome the shortages in the agricultural education profession and meet the need to provide highly qualified teachers, an understanding of what occurs during the critical field experiences of teacher candidates is warranted. The relationship between cooperating teacher and student teacher has been found as one of the key elements that affect the overall teaching efficacy of student teachers and their decision to enter the teaching field after graduation (Edgar, 2007; Edgar, Roberts, & Murphy, 2011, 2008; Kasperbauer et al., 2007a; Roberts, Greiman, Murphy, Ricketts, Harlin, & Briers 2009; Roberts, Harlin, & Briers, 2007, Roberts, Harlin, & Ricketts, 2006; Roberts Mowen, Edgar, Harlin & Briers, 2007, Stripling, Ricketts, Roberts & Harlin, 2008; Wolf, 2011; Wolf et al., 2010). Because of this noted
importance occurring during these experiences, focused research allows a more full understanding of the numerous variables affecting the outcome of participants.

Institutions at the post-secondary level are still trying to determine the reason for the teacher shortage (Lawver & Torres, 2011). Kershaw (2008) explained the 10 x 15 innovation by saying:

By 2015 there will be in operation 10,000 quality agricultural education programs serving students through an integrated model of classroom/laboratory instruction, experiential learning, and leadership and personal skill development. Further, all students will be members of the FFA and have a supervised agricultural experience that supports classroom and laboratory instruction. (Kershaw, 2008, pg 1)

Wolf (2011) suggested that studying teaching efficacy may offer the potential solution to the teacher shortage in agricultural education. Preservice teaching experiences lay the foundation for agricultural education graduates to enter the teaching field (Lawver & Torres, 2011). Edgar (2007) suggested that the student teaching experience has a dramatic effect on the attitudes and beliefs of student teachers. The overall student teaching experience allows preservice teachers to develop lessons and lead classroom learning events while participating in courses that allow preservice teachers to actually be “students of education” (Edgar, 2007, p. 2). Teaching-efficacy has shown to impact individual’s entrance to the field of teaching (Wolf, et al., 2010). Wolf et al., (2010) reported that “candidates reported a favorable view of their preparation, although their preparation was lower than their perceived sense of teaching
efficacy” (p. 44). It was further indicated that verbal feedback had a moderated positive relationship to candidates overall teacher self-efficacy.

Teaching efficacy was originally defined by Berman, McLaughlin, Bass, Pauly, and Zellman (1977) as “the extent to which a teacher believes he or she has the capacity to affect student performance” (p. 137). Self-efficacy and teaching efficacy can be directly related to the environment in which the individual interacts with. During the preservice teaching experience student teachers are exposed to several types of environments such as direct feedback, student compliments, personal confidence, classroom behaviors of students, support by cooperating teacher and school administration but the major environmental factor that research has indicated as the most important was communication between cooperating teacher and student teacher concerning feedback (Edgar, 2007; Edgar et al., 2011; Edgar et al., 2008; Kasperbauer et al., 2007; Roberts et al., 2007a; Roberts et al., 2007b; Roberts et al., 2006; Shute, 2007; Whittington, McConell, & Knobloch, 2006; Wolf, 2011).

Communication between supervisors and employees is crucial in any type of situation however, communication is imperative in terms of the educational field. Fritz and Miller (2003) established the concept that student teachers should receive feedback daily to address teaching concerns. Edgar (2007) further elaborated that structured communication played a vital role in understanding the relationship between the student teacher and cooperating teacher. This study used structured communication to encourage communication about preservice teachers’ performance. The communication form was supposed to act as the channel for cooperating teachers to provide feedback and recommendations to student teachers. Performance evaluations acted as a way for preservice teachers to grow and develop skills affecting their perceived
classroom teaching abilities. Dewey (1981) suggested that meaning happens from language which is a two way street consisting of a sender and receiver in developing meaning and understanding, for example communication between student teachers and cooperating teachers. (Edgar et al., 2011; Edgar, et al., 2008; Roberts et al., 2007; and Wolf, 2011) stated that student teachers gain knowledge about affective teaching when the cooperating teaching is willing to share ways of improvement. Congruent with this premise, Demoulin (1993) challenged cooperating teachers to “foster unique teaching techniques and give support and encouragement to student teachers” (p. 160).

**Problem Statement**

The purpose of this study was to assess teaching efficacy and the relationship of student teacher and cooperating teacher via a structured communication instrument. This study was a replication of a study done by Edgar (2007) but the goal of this study was to define a more diversified group as recommended. The reason for replicating this study was to determine if student teachers’ perceptions changed throughout the semester at multiple universities in order for the results to be more applicable to student teaching as a whole. Structured communication affects student teachers because it requires them to have a conference with the cooperating teacher on a bi-weekly basis in order to receive feedback on what he/she is doing right and what needs improvement so at the end of the preservice teaching experience they feel they are capable of effectively operating their own classroom. Research conducted by Edgar (2007) indicated that cooperating teachers are not effectively communicating with student teachers during the preservice teaching experience. His findings suggested that by using structured communication,
cooperating teachers along with student teachers are required to improve communication on what
the student teacher is excelling in and what the student teacher could do to improve as teacher.

**Purpose Statement**

Success in the classroom was closely related to their teaching efficacy for those
individuals who enter the field of education (Wolf, 2011). If a teacher believes they can teach,
he/she will spend more time and effort in teaching (Schunk, Pintrich, & Meece, 2008). It has
been found that when teaching efficacy is low, he/she will spend more time dealing with
classroom management then actually teaching. Therefore, determining impacts toward teaching
efficacy during the student teaching experience could play a vital role in teachers’ success
especially that of new teachers. The purpose of this study was to assess teaching efficacy and the
relationship of student teacher and cooperating teacher through a structured communication
instrument at multiple universities.

**Key Terms**

*Agricultural Education* – The systematic instruction in agriculture and natural resources at
elementary, middle school, secondary, and post-secondary, for the purpose of preparing
individuals for entry or advancement in agricultural occupations, entrepreneurship, and
agricultural literacy (Phipps, Ozborne, Dyer, & Ball; 2008).

*Agricultural Teacher* – An educator who is responsible for teaching agricultural and natural
resource courses in school 5-12 or colleges.

*Constructivism* – An educational theory based on psychological and philosophical perspective
contending that individuals actively construct their own knowledge and meaning from their
experiences (Doolittle & Camp, 1999; Fosnot, 1996; Schunk et al., 2008).
**Constructivist Teaching** – Instruction that incorporates principles of constructivism to allow students to construct their own learning.

**Cooperating Teacher** – An agricultural teacher in a school system that mentors and supervises a student teacher during the student teaching experience.

**Efficacy** – Capacity for producing a desired result or action (Schunk et al., 2008).

**Extrinsic Motivation** – Motivation due to external factors which encourage individuals to engage in an activity in order to attain some separable outcome (Ryan & Deci, 2000; Schunk et al., 2008).

**Feedback** – Information communicated to the learner that is intended to modify the learner’s thinking or behavior for the purpose of improving learning (Shute, 2007).

**Intrinsic Motivation** – Motivation to complete a task or activity that is inherently interesting or enjoyable to the individual (Ryan & Deci, 2000; Schunk et al., 2008).

**Motivated Learning** – Motivation that intended to acquire skills and strategies rather than to perform task (Schunk et al., 2008).

**Motivation** – The process where-by goal-directed activity is instigated along with the factors that energize direct and sustain behaviors (Schunk et al., 2008).

**Preservice Teaching Experience** – Students enrolled in an agricultural education certification programs that take part in a semester long preparation activity where student teachers are placed at cooperating public school where practical skills are developed.

**Self-Efficacy** – One’s perceived judgments of their capabilities to organize and execute courses of actions required in order to attain designated types of performance or outcomes (Bandura, 1986, p. 391).
Social Cognitive Theory – The major or basic modes of behaving are learned in social situations and are inextricably fused with needs requiring for their satisfactions the mediation of other persons (Rotter, 1954).

Structured Communication – Structured, guided, and collected communication between student teacher and cooperating teacher regarding performance when communication occurred (Edgar, 2007).

Teaching Efficacy – Teachers beliefs about their capabilities to bring about desired outcomes of student engagement and learning, even among those student who might have learning difficulties or are simply unmotivated” (Tschannen-Moran & Woolfolk Hoy, 2001).

Chapter Summary

The need for highly motivated, well-educated teachers is at an all-time high (Schute, 2008; Wolf 2011). Teacher education programs provide the technical understanding of teaching and real world experience that should prepare preservice teachers to enter the field of agricultural education. This study used a structured communication form in order for the cooperating teacher provided adequate feedback which could affect student teachers perceptions of their teaching efficacy.

This chapter provided the background information in order to provide reasoning on why this study is needed. The purpose of this study was to assess teaching efficacy and the relationship of student teacher and cooperating teacher through a structured communication instrument at multiple universities to determine if preservice teachers’ perceptions of their teaching abilities change throughout the semester. The student teacher completed the communication instrument first, and then the cooperating teacher completed the instrument, once
both have completed the instrument the cooperating teacher reviews their response to the instrument with the student teacher and provides suggested improvements.
CHAPTER II

Theoretical Framework

A goal of this study was to investigate teaching efficacy of preservice teachers enrolled in the spring semester of 2013 student teaching at the University of Arkansas and the University of Georgia. Determining if changes occur in teaching efficacy throughout the preservice teaching experience was one goal of this study. Researchers also looked at the relationship between student teacher and cooperating teacher via a structured communication instrument. The research was conducted as a replication of a study done by Edgar (2007) but through a more diverse audience.

Reciprocal Determinism

Determining what influences specific human behaviors have been investigated for years specifically looking at internal determinates and environments (Bandura, 1978; Schunk, 2000). In trying to understand human behavior Albert Bandura (1978) developed the concept of reciprocal determinism. Reciprocal determinism examines the cyclical of personal factors, human behaviors, and the environmental factors that affects behaviors. Bandura (1978) was quick to realize that in order to understand human behavior in terms of the social cognitive theory; one must understand how the environment, behavior and personal factors affect one another. Bandura (1978) quickly realized that all three affect each other therefore he developed a model to better understand what these factors.
Figure 2-1. Reciprocal determinism model as adopted by Bandura 1986.

Bandura (1978) called the cyclical nature of these three components reciprocal determinism. Determinism as considered by Bandura (1978) was simply “understanding actions determined by a sequence of influences” (p. 3). Schunk, (2000) further addressed human behavior by saying that “triadic reciprocity or reciprocal interaction among behavior, environmental variables, and personal factors” (p.80). This study explains, as it relates to reciprocal determinism, preservice teaching experience as behavior component. The personal factors included: gender, teaching efficacy, and level of education. The environmental factors include method of teaching and relationship with cooperating teaching. Bandura also noted that environment played a major role in what influences behavior realizing that the environment was partially of the individuals own making. Reciprocal determinism is used in the study to examine the cyclical nature of the student teaching experience (behavior), age, gender, teaching efficacy (personal factors), and relationship between cooperating teacher and student teacher.
The concept of reciprocal determinism is the major component of the social cognitotive theory which is the foundational theory for this study.

**Social Cognitive Theory**

As explained by Bandura (1986) the social cognitive theory attempts to explain how people acquire and maintain certain behavioral patterns. According to Rotter (1954), “the major or basic modes of behaving are learned in social situations and are inextricably fused with needs requiring for their satisfactions the mediation of other persons” (p. 84). Bandura (1997) regarded self-efficacy as one of the most important factors contributing to an individual’s behavior. The idea that every individual has the potential to influence change, regardless of their skill level, was the key to the social cognitive theory (Pajares, 2002). Social learning theory can be used to explain and predict individual or group behavior and used to help identify ways in which behavior can be modified or changed for favorable outcome (Whittingon et al., 2006). Parjares (2000) stated that social cognitive theory is “a view on human behavior in which the beliefs that people have about themselves are key elements in the exercise of control…in which people are producers of their own environments and social systems” (p. 2). Bandura (1986) summarized the social cognitive theory by saying that “what people think, believe and feel effects how they behave” (p. 25).

From the social cognitive theory standpoint student teacher and cooperating teacher relationships and student teachers perceptions of their abilities to teach influenced the behavior of student teachers. The relationship between student teachers and cooperating teachers had a major effect of the observational learning that takes place during the student teaching experience. Observational learning according to Schunk et al., (2008) expanded the range and rate of
learning over what could occur if each response had to be performed and reinforced for it to be learned.

The overall student teaching experience is designed in a way to where a college senior is given the opportunity to teach at a local high school in order to get teaching experience. The overall purpose of the student teaching experience is to allow future teachers the opportunity to learn how to teach from someone who has several years of teaching. Student teachers spend about two weeks of just observing the cooperating teacher to see how they teach and operate their classroom. Then the student teacher will take over a class and start teaching the subject until the internship is over. The student teacher will keep adding classes until the student teacher has full control of the all of the cooperating teachers’ classes. The student teaching experience gives the student the opportunity to learn through observation while getting practical experience of teaching and dealing with real world situations.

Without realizing it, student teachers spend a great amount of time just observing different interactions that take place between cooperating teachers, while the relationship between student teacher and cooperating teacher can greatly affect by what is observed and taught (Vanderfifer, Lewandowski, & Dickens, 2007). The interactions between student teacher and cooperating teacher are important during the student teaching experience (Kasperbaurer et al., 2007). Therefore, student teachers value the perceptions of their relationship with their cooperating teacher (Edgar, et al., 2008). Student teachers’ perception of their ability to teach was a reflection of self-efficacy based off the social cognitive theory.
Self-Efficacy

Self-efficacy was defined by Bandura (1986) as “people’s judgments of their capabilities to organize and execute courses of actions required in order to attain designated types of performance” (p. 391). Self-efficacy affects willingness to participate in activities, amount of effort put forth on a specific task and persistence to continue when task seems challenging. This theory postulates that individuals with high efficacy had intrinsic interest and deep engrossment in activities. Bandura (1997) concluded that “efficacy is a generated capability in which cognitive, social, emotional, and behavioral skills must be organized to serve innumerable purposes” (p. 17). Individuals with high-efficacy approach challenging and treating task with assurance they can exercise control over them and they have the staying power to overcome obstacles and set-backs (Bandura, 1994; Wolf, 2011). “If people believe they have no power to produce results, they will not attempt to make things happen” (Bandura, 1997, p.3).

Bandura (1977) suggested there were four sources of efficacy: mastery experience, physiological and emotional arousal, vicarious experiences, and social persuasion. Mastery experiences are generally the most successful way to develop a strong sense of self-efficacy. Bandura explained that if individuals encounter success with task they will build self-efficacy while if exposure to failure lowers self-efficacy. It was also noted by Wolf, Foster and Birkenholz (2010) that physiological and emotional arousal affects sense of self-efficacy. By reducing stressful situations and reactions and changing negative attitudes towards adversity individuals self-efficacy increases. Vicarious experiences include observing individuals successfully complete a task in order to increase self-efficacy so the observer realizes that the task can be accomplished.
According to Wolf et al., (2010) social persuasion happens when individuals are influenced by others who successfully completed the task. Social persuasion helps to aide self-efficacy based on knowledge acquisition and self-efficacy was used to determine how much knowledge will be acquired throughout the experience. Because knowledge is acquired through experience Edgar (2007) noted that individuals perceived abilities hand little to no correlation to their perceived value of themselves based off their experiences. Therefore, self-efficacy was determined by individual’s perceptions of capabilities and not based on self-worth or self-esteem (Edgar, 2007). Tschannen-Moran, Hoy, and Hoy (1998) stated that self-efficacy has a cyclical nature either positive or negative:

Greater efficacy leads to greater effort and persistence, which leads to better performance, which in turn leads to greater efficacy [and] lower efficacy leads to less effort and giving up easily, which leads to poor outcomes which produces a decrease in efficacy (p. 22).

Self-efficacy in the context of teachers and teaching has been labeled teaching efficacy (Wolf et al., 2010). Self-efficacy was further explained by using the concept of teaching efficacy which was consistent with the idea that self-efficacy is cyclical in nature. Self-Efficacy supported the idea that one’s belief in their abilities to achieve a certain task will lead to competent performance of the said task (Stripling et al., 2008). This was particularly true in the context of teaching and teaching efficacy.

**Teaching Efficacy**

Teaching efficacy was originally defined by Berman, Mclaughlin, Bass, Pauly, and Zellman (1977), as “the extent to which a teacher believes he or she has the capacity to affect
student performance” (p. 137). Tschannen-Moran and Hoy (2001) defined teaching efficacy as “… a judgment about his or her capabilities to bring about desired outcomes of student engagement and learning, even among those student who might have learning difficulties or are simply unmotivated” (p. 1). Edgar, et al. (2011) added that teaching efficacy was more of a personal factor and defined teaching efficacy based off (Tschannen-Moran et al., 1998) as “the teachers’ belief in his or her capabilities to organize and execute action required to successfully accomplish a specific teaching task in a particular context” (p. 22).

Teaching efficacy has four sources of efficacy: mastery experience, physiological and emotional arousal, vicarious experiences, and social persuasion (Bandura, 1994). Teachers with a greater sense of teaching efficacy understand that students who were unmotivated were still teachable when the teacher puts forth extra effort and gains support from the school, student’s family, and the community in order to influence the student. Teachers with low teaching efficacy believe that unmotivated students were unreachable and teacher had limited support from environmental factors (Wolf et al., 2010). Teachers with higher teaching efficacy were more likely to incorporate dynamic, student focused learning environments where students take ownership of creating their own knowledge and learning where teachers with lower teaching efficacy would spend more time on managerial task such as discipline, taking the role, and answering non important questions (Bandura, 1997; Wolf et al., 2010). Roberts et al. (2007) suggested that teachers who believe strongly in their teaching efficacy will be more likely to foster self-efficacy in their students through development of challenging and engaging learning environments.
Tschannen-Moran et al., (1998) realized that many student teachers lack the understanding or complexity of teaching. Therefore, student teachers expectations change because their roles change and realize their expectation of students in the learning environment and actual student commitment to learning are different causing caps between teacher and learner (Edgar, 2007). Student teachers perception has an effect on career commitment in the terms of contract length, number of students and years of teaching experience. Career commitment has been positively related to teaching efficacy, while length and years of teaching experience were negatively associated with teaching efficacy according to a study by Whittington et al. (2006).

In terms of instruction and classroom management Bandura (1993) suggested that classroom environment is related to teachers’ instructional efficacy. Teachers who have more instructional efficacy use more of class time for instruction and provide students who have difficulty learning with the help they need (Gibson & Dembo, 1984). Teachers with high instructional efficacy tend to “foster mastery experiences for their students,” according to Bandura (1994, p. 140). Personal teaching efficacy was found to increase during the first year of teaching. Brown and Gibson (1982) found that teachers with five to ten years of teaching experience had a higher degree of teaching efficacy which should be expected because of the experiences they have faced within those years. Those teachers also had reached the mastery level in terms of teaching efficacy.
Conceptual Frameworks

Student Teacher Relationship

Many researchers conducted studies focused on student teaching experience as a “capstone” event for preservice candidates (Edgar et al., 2011; Edgar, 2007; Kasperbauer & Roberts, 2007a; Roberts et al., 2007; Roberts et al, 2009; Wolf, (2007). Edgar (2007) determined that the most important factor during the student teaching experience was the cooperating teacher. University of Arkansas and University of Georgia have in place a rigorous process for selecting student teacher cites and cooperating teachers. Most universities have a rigorous process for selecting student teacher sites and cooperating teachers (Wolf, 2011). A university cannot control every factor when placing student teachers at a cooperating center, but faculty seek to find the best fit for each student teacher. Initial research on cooperating teacher student teacher relationships was done by Roberts, Harlin and Ricketts (2006). Roberts et al. (2006) purpose was to look at student teachers as they develop throughout the student teaching experience. They concluded that student teachers’ perceptions of the relation between cooperating teachers and student teachers were not an indicator of the student teachers’ desire to teach. Therefore, it was important to note that the relationship between cooperating teachers and student teachers will change from time to time throughout the preservice teaching experience (Roberts et al, 2006).

Edgar et al. (2011) elaborated on the relationship of cooperating teachers and student teachers by concluding that a students’ perceived teaching efficacy and age was a positive factor in the relationship between student teacher and cooperating teachers. In the study conducted by Edgar et al. (2011) study was conducted on three semesters of student teachers at Texas A&M
University using the same communication form that is used in this study. However, the implication of the structured communication tool had no effect on the relationship of student teacher and cooperating teachers but they recommended looking at multiple universities to see if there is a difference when a communication form is used.

Edgar’s (2007) study looked at student teachers at the Texas A&M University. Edgar used a control group that did not receive the communication tool while treatment group received the communication tool. The reason for replicating this study was to determine if student teachers’ perceptions changed throughout the semester in order that the results will be more applicable to future teacher candidates. Therefore, this study did not use a control group. In order to understand the basis for conclusions and recommendations through methodological procedures utilized, a foundation of applied theoretical concepts was formulated.

Roberts, Harlin, and Briers (2007) assessed the relationship of student teacher and cooperating teachers’ relationship based on personality type. The researchers noted that the personality type of a cooperating teacher greatly influenced the overall efficacy and relationship of the student teachers. Roberts et al. (2007) categorized cooperating teachers as extroverts or, introverts based off of the constructs: sensing, feeling, thinking and judging. In this research, cooperating teachers were classified as introverts that were more sensing thinking and judging. The researcher suggested that universities should consider the personality traits of student teachers and try and match them with cooperating teachers who have similarity personality traits.

Motivation to Teach

In order to address motivation to teach motivation must be addressed. Motivation was defined by Schunk et al. (2008) “the process whereby goal-directed activity is instigated and
sustained” (p. 4). Motivation requires activity which must be instigated and sustained. Motivation typically comes from either within the individual (intrinsic motivation) or from an external factor (extrinsic motivation).

Determining what motivates a college graduates to enter the field of teaching can be address by looking at individual expectations and individual success. Individual expectations were founded on principles of Maslow’s needs theory (Harms & Knobloch, 2005). Maslow suggested the people were motivated by a series of unmet needs, and that lower-level needs must be meet satisfied before high level needs can be satisfied. Harm and Knobloch (2005) suggested that “needs theory relates to job satisfaction, when the three higher orders of needs (self-esteem, autonomy and self-actualization) were major factors in job satisfaction than teachers with lower satisfaction” (p. 103). Personal success was also a factor on job satisfaction. As performance increases individuals belief in their abilities grows and the individual considers more career opportunities (Harm & Knobloch, 2005). When individuals perform better especially in career preparation course those individuals are more likely to stay in the choose career field.

Individuals were introduced to professional development occurs early and often in teaching which is shaped by personal and environmental factors (Bandura, 1977). It has been noted by Harms and Knobloch (2005) that professionals in the teaching field choose this career path based off childhood experience. The teaching profession typically attracts individuals who consider teaching as a “good fit” and want to make improvement to society (Harms & Knobloch, 2005).

Motivation is essential in explaining why individuals choose a career in agricultural education. With agricultural education internal motivation typically does not play a role in an
individual’s reasoning for pursuing a career as an educator. Shoulders and Myers (2011) concluded that beliefs come from various areas of an individual’s life. Shoulders & Myers (2011) also noted that social beliefs shape a professional’s identity and is one factor of why they are motivated to teach. In explaining motivation to teach in terms of agricultural education, Harm and Knobloch (2005) stated:

Three of these items, (a) serving others, (b) touching people’s lives/making an impact, and (c) “calling” to a career, measured intrinsic career choice motivation, while the remaining three, (d) salary and benefits, (e) balance between career and personal time, and (f) opportunities for advancement/personal growth, measured extrinsic career choice motivation (p. 108).

By investigating the six factors noted previously Harm and Knoblach (2005) suggested that the preservice teaching experience could further explain individual’s motivation to teach.

**Structured Communication**

The relationship between student teachers and cooperating teachers had a major effect of the observational learning that takes place during the student teaching experience. This relationship could be used to explain the overall student teaching experience. By looking into the communication factors between cooperating teachers and student teachers the source-message-channel-receiver model (SMCR model). The channel was considered the most important factor the (SMCR) model. The channel can come in two ways: verbal and written. Verbal channels include one on one sit down session where the cooperating teacher provides suggestions to the student teacher, informal talks during lunch, and round table talks with other teachers if in a multiple teacher program. Written channels includes weekly journals where the
cooperating teachers writes down suggestion and notes on how the student teacher can improve, structured communication tool where the teacher rates the student teacher on different constructs, or any other means of writing down their observations of the student teacher.

For the purpose of this study the receiver will be the student teacher, because the student teacher is the intended receiver of the information given through structured communication. Feedback is given through the communication tool and it is the job of the receiver/student teacher to take the feedback and incorporate in to improve or ignore feedback. For student teachers and cooperating teachers feedback can have a direct relationship teaching efficacy. If feedback is always negative the teaching efficacy will decrease while if the feedback is positive teaching efficacy will increase. In the case of student teachers and cooperating teachers noise could be comments made by students, parents, school faculty, or community leaders. Figure 2-3 displays the conceptual and theoretical frameworks of this study.
Research Objectives

1. Describe if teaching efficacy of preservice teachers change when the cooperating teacher uses a communication tool.

2. Describe the student teacher perceptions towards teaching change when cooperating teachers’ use a communication tool.

3. Describe the difference in overall teaching efficacy and student teacher cooperating teacher relationships between multiple universities.
Limitations of the Study

Based on the identified frame the following limitations were formulated:

1. The sample used in this study was selected based off individuals enrolled in the student teaching experience at multiple universities and not randomized. Generalizing the conclusion, results, and recommendations beyond the targeted sample is inaccurate and not recommended.

Assumptions

Based on the identified frame the following assumptions were formulated:

1. Participants in this study honestly completed the Preservice Teaching Experience Questionnaire used in this study.

2. Subjects honestly completed the demographic and background segments of the instrument.

3. The sample from the University of Arkansas, University of Georgia at Athens, and the University of Georgia at Tifton were accurate representations of all agricultural education student teachers at the participating universities.

Chapter Summary

This chapter sets the foundation for this study based off of literature related to problem addressed in this study. The theoretical framework was founded on social cognitive theory. Social cognitive theory explained individuals’ behavior and actions in a social setting. Social cognitive theory can be broken down into a sub-theory of self-efficacy, which was explained how people feel about their ability to accomplish a task and the likelihood they would even try a task depending on the difficulty and previous experiences. Teaching efficacy explained how
teachers and student teachers feel about their ability to motivate students and their capability to successful teach students.

The series of conceptual frameworks include: Student teacher relationships, motivation for teaching and structured communication. Student teacher relationship was used to look at how student teacher and cooperating teacher interact with each other and how this relationship has an effect on the overall student teaching experience and the student teacher teaching efficacy. Motivation to teach laid the foundation for why individuals choose to teach or not. Motivation to teach can be either extrinsic or intrinsic. Communication was another component in the student teaching experience in order to improve communication between cooperating teacher and student teacher.
CHAPTER III

Methodology

The purpose of this study was to assess teaching efficacy and the relationship of student teachers and cooperating teachers via a structured communication instrument that allows for direct feedback from the cooperating teacher and the student teacher in an effort to determine if preservice teachers perceptions of their teaching abilities change throughout the semester. Chapter I provided background information that supplied the need for this study along with key terms and purpose of the study. Chapter II outline the conceptual and theoretical frameworks based of the review of literature. Chapter III introduces the research design, validity, demographics, and instrumentation, along with procedures for data collection.

Research Objectives

Based on the review of literature the following objectives were formulated:

1. Describe if teaching efficacy of preservice teachers change when the cooperating teacher uses a communication tool.

2. Describe the student teacher perceptions towards teaching change when cooperating teachers’ use a communication tool.

3. Describe the difference in overall teaching efficacy and student teacher cooperating teacher relationships between multiple universities.
**Hypotheses**

This study was guided by the following null and alternative hypothesis:

**Null**

\(Ho_1\): There will be no significant difference in teaching efficacy based on cooperating teachers’ use of a communication tool between universities.

\(Ho_2\): There will be no significant difference in student teachers’ perceptions towards teaching when cooperating teachers’ use a communication tool between universities.

\(Ho_3\): No significant difference will be found between universities based on overall teaching efficacy and student teacher cooperating teacher ratings.

**Alternative**

\(Ha_1\): There will a significant difference in teaching efficacy based on cooperating teachers’ use of a communication tool between universities.

\(Ha_2\): There will be a significant difference in student teachers’ perceptions towards teaching when cooperating teachers’ use a communication tool.

\(Ha_3\): Significant difference will be found between universities based on overall teaching efficacy and student teacher cooperating teacher ratings

**Research Design**

This study used a quasi-experimental design with a non-random sample with a time-series design (#14) (Campbell & Stanley, 1963). Campbell and Stanley (1963) defined: “a quasi-experimental design as there are many natural social settings in which research person can introduce something they lack the full control over the scheduling of experimental stimuli which makes it a true experiment” (p. 34). A priori was set at .05 (alpha) according to reviewed
literature and the concerns of committing a type two error. The research was conducted based
off the following design:

\[
\begin{array}{cccccccc}
AR & O_1 & X_1 & X_2 & X_3 & O_2 & X_4 & X_5 & X_6 & O_3 \\
\hline
GA & O_1 & X_1 & X_2 & X_3 & O_2 & X_4 & X_5 & X_6 & O_3 \\
\end{array}
\]

The first measurement of teaching efficacy (O_1) was taken during the last week of block
classes or the fourth week of the student teaching experience. The second measurement of
teaching efficacy (O_2) was taken during the sixth week of the 12 week student teaching
experience at a mid-semester meeting between student teachers and their respective university
(University of Arkansas or University of Georgia) supervisor. The third (O_3) and concluding
teaching efficacy measurement was taken at the end of the 12 week student teaching experience.
The experimental variable (Structure Communication Form) (X_n) was introduced at the
beginning of the 12 week student teaching experience, at the conclusion of the four week block
course. The experimental variable was collected every other week for twelve weeks. The
independent variable was identified as the communication between student teacher and
cooperating teacher. The treatment in this study requires structure and measurement which was
normal during student teaching.

**External and Internal Validity**

External and internal validity threats according to Campbell and Stanley (1963) includes
eight internal threats and three external threats to validity of a research study. The threats to
internal validity are history, maturation, testing, instrumentation, statistical regression, selection,
experimental mortality, and selection-maturation interaction. History as a validity threat was
limited by using the same group of student teachers enrolled at during the same semester at three different universities. Maturation was controlled by collecting data in the shortest amount of time possible when student teachers were enrolled in student teaching experience. Testing does not occur during this study because the independent variable acts as the measure of the treatment implemented therefore, testing is not an internal threat to this study.

Instrumentation was limited by using parallel forms at the three point of measurement for teaching efficacy. Statistical regression was a threat to this study do to the nature of a time-series design. Post hoc test were used to identify outliers and help to determine outliers that should be noted for data analysis. Participant selection creates a threat to this study since the sample was purposely selected and random selection was not available due to the nature of education. Experimental mortality should not pose any threat to internal validity as student teaching was a requirement for teacher certification; therefore subjects could not withdraw from student teaching. Selection-maturation interaction was not a concern because every student teacher received the same treatment throughout the student teaching experience. The researcher realizes that individuals mature at different rates and history and instrumentation could influence selection interaction.

The three threats to external validity included interaction and testing of experimental variables, interaction of selection and experimental variable and reactive arrangement. The experimental variable in this study was applied to student teachers and cooperating teachers through the use of a communication form. If external validity poses a threat it would only occur because of an unusual occurrence not normally present during student teaching.
Communication and measurement takes place throughout the student teaching experience. Student teachers could experience a difference in overall teaching experience since the method of communication has changed. Therefore, interaction of selection and experimental variable poses no real threat to this study. The largest threat to external validity is reactive effects also known as “Hawthorne” effects which are when a participant does not answer like they typically would because they believe they are part of a study. Since student teachers are exposed to several measurements throughout the student teaching experience, there was little concern about reactive external threats to this study.

**Sample Demographics**

The target population of this study was individuals who are enrolled in an agricultural education department with a teacher certification program which requires the student teaching experience at three purposely selected states. Data was collected the University of Arkansas ($N = 27$) in the spring of 2012 ($n = 12$) and 2013 ($n = 15$) and the University of Georgia ($N = 32$) in the spring of 2012($n = 12$) and 2013 ($n = 20$). Teaching efficacy data was collected at three points during the semester. Background and demographic information was collected on the self-efficacy measurement.

**Instrumentation**

Instruments developed or adopted for this study were constructed and adopted from literature. There were several instruments used to assess the major variables of importance. This study used existing instrument with established validity and reliability. Reliability coefficients and validity correlations are discussed for each instrument presented.


**Communication Form**

The communication instrument in this study was adopted from the Department of Education at Florida State along with Texas A&M University. The communication form contains 12 sections of accomplished practices of the student teacher. The cooperating teacher was required to assign a ranking of O-Outstanding; A- Accomplished; P- Progressing; NI- Needs Improvement; or NA- Not Applicable or observed. The specifics of how to rate the student teachers, on the communication form are as follows; O-Outstanding: The student teacher demonstrates the skills in a mastery manner. A- Accomplished: The student teacher demonstrates the skill consistently in an acceptable manner. P- Progressing: The student teacher was progressing adequately towards being able to demonstrate this practice. NI- Needs Improvement: The student teacher inadequately demonstrates or there is an extreme absence of the said skill. NA- There was no observation or the skill was not applicable for the skill being rated.

The cooperating teacher and student teacher filled out the communication form every other week for the 12 weeks of the student teaching experience. There was a comment and recommendation section for every suggested practice that the student teacher should complete. The comments and recommendations were presented to the student teacher in order for student teachers to constantly improve and have a valuable student teaching experience. Direction on how to properly complete the communication form was outlined in both short and long form.

**Preservice Teacher Experience Questionnaire**

In order to measure teaching efficacy Tschanne-Moran and Woolfolk Hoy (2001) developed a Teachers Sense of Efficacy Scale (TSES) also known as the Ohio State Teaching
Efficacy Scale (OSTEES). This instrument contains 24 items based off three major constructs, which each constructs has eight items. The three constructs are engagement, instruction, and classroom management. The reliability coefficient (Cronbach’s Alpha) for Engagement was .87, Instruction was .91, and Classroom Management was .90. A panel of experts along with consulting previous literature was used to ensure content validity. Construct validity was developed through factor analysis along with literature comparisons (Edgar, 2007).

In order to study the relationship between student teacher and cooperating teacher a researcher developed instrument (Edgar et al., 2008; Kasperbaurer & Roberts, 2007b; Roberts, 2006) was utilized to collect perception data of student teachers about their relationship with their cooperating teacher. The instrument was designed to coincide with the background/demographics and teaching efficacy instrument. The cooperating teacher student teacher relationship portion consisted of 43 items. The 43 items were developed based off four constructs which included: teaching/instruction, professionalism, personality, and cooperating teacher/student teacher relationship. Teaching/instruction construct consisted of nine statements, professionalism and personality constructs consisted of ten statements a piece, while student teacher/cooperating teacher construct had 14 statements. The scale was used to establish the describe characteristics of the cooperating teacher as perceived by the student teacher. Face and construct validity was established through an expert panel of experts in the Department of Agricultural Leadership, Education, and Communication at Texas A&M University (Edgar 2007). The reliability coefficient (Cronbach’s Alpha) for the relationship questions was .78.
Data Collection

Procedures

Data was collected from participants of this study on three variables. Data was collected to address the following variables; teaching efficacy, communication, and relationship. Data to address teaching efficacy was collected during the 2012 and 2013 spring semesters at two universities (University of Arkansas \((n = 12)\) and University of Georgia \((n = 32)\). The individuals who participated were enrolled in student teaching internship at their respective university. Teaching efficacy data was collected at three points throughout the student teaching experience. The first collection period was during the last week of their four week block class. “Block” is a four week period at the beginning of the spring semester in which students participate in the preservice teaching experience. During these four weeks students are given the opportunity to prove they are ready to teach. The second data collection point took place during the sixth week of the student teaching experience at a mid-semester meeting that consisted of student teachers enrolled in the student teaching experience and the respective university supervisor. The third data collection took place at the end of the 12 week student teaching experience at the wrap up session which included student teachers and their respective university faculty.

The communication form data was collected every other week for 12 weeks starting at the end of the four weeks of class known as “block.” The communication tool was turned in by the student teacher at the end of the student teaching experience. The research must assume that all student teachers and cooperating teacher accurately completed the communication form
honestly and timely. Reminder emails were sent out periodically throughout the semester to remind the student and cooperating teachers about completing the communication form.

Relationship data was collected at three points throughout the student teaching experience. The first collection period was during the last week of their four week block class. The second data collection point took place during the sixth week of the student teaching experience at a mid-semester meeting that consisted of student teachers enrolled in the student teaching experience and the respective university supervisor. The third data collection took place at the end of the 12 week student teaching experience at the wrap up session that included student teachers and their respective university faculty. Demographic information was collected from every individual who participated in this study.

**Analysis of Data**

Data was analyzed using SPSS® 15 for Windows™ statistical pack. Demographic characteristics were evaluated using descriptive statistics such as means, frequencies, standard deviations, and normality. The relationship of student teachers/cooperating teachers, student teacher perceptions and contextual variables were examined using correlation statistics. In order to measure the influence of the independent variable, use of communication form, and dependent variables (teaching efficacy and student teacher/cooperating teacher relationship) along with the contextual variables that were used as covariates during data analysis. A multivariate analysis of variance (MANOVA) was run along with a repeated measure mixed design and repeated measure analysis of covariance to further explain the findings of the study.
Chapter Summary

This chapter was designed to describe the research methodology used to answer the research questions outlined in this study. By explaining the research design, internal and external validity, sample demographics, instrumentation, data collection, and analysis of data were described in this method sections. The research design chosen for this study was a quasi-experimental non-random sample in multiple design series (#14) (Campbell & Stanley, 1963). Inferential statistics will be used to insure the sample is an equal representative of all student teachers. Generalizations to other populations about the data collected must be made with caution. The sample is student teachers enrolled in the spring 2013 student teaching course at their representative university. Several instruments were used to address the variable so interest of this study. The variables of this study included: demographics, teaching efficacy, and communication form. Data will be analyzed using SPSS® 15.0 for Windows™. Descriptive statistics will be used to analyze demographic information. Correlations will be used to describe the relations between student teachers and cooperating teachers. Once correlation information is examined, a MANOVA along with a repeated measure mixed design was utilized to further examine the findings of this study.
Chapter IV

Findings

Success in the classroom is closely related to their teaching efficacy for those individuals who enter the field of education (Lawver & Torres, 2011). If a teacher believes they can teach, he/she will spend more time and effort in teaching (Schunk, et. al., 2008). When teaching efficacy is low, he/she will spend more time dealing with classroom management then actually teaching. Therefore, determining impacts towards teaching efficacy during the student teaching experience could play a vital role in teachers’ success especially new teachers. The purpose of this study was to assess teaching efficacy and the relationship of student teacher and cooperating teacher through a structured communication instrument at multiple universities. Hypothesis testing was used to provide demographic information, student teacher/cooperating teacher relationship, and teaching efficacy at different points throughout the preservice teaching experience. The statistical power of all test presented were limited by a small sample size.

Sample Demographics

The population of this study was individuals who were enrolled in an agricultural education department with a teacher certification program which requires the student teaching experience at the University of Arkansas \( (N = 27) \) in the spring of 2012 \( (n = 12) \) and 2013 \( (n = 15) \) and the University of Georgia \( (N = 32) \) in the spring of 2012\( (n = 12) \) and 2013 \( (n = 20) \). Participant demographics and background included gender, age, ethnicity, graduation plans, job opportunity in the field, high school agriculture classes, college major, college classification, agricultural work experience, and university enrolled.
Gender

Gender classification was acquired to describe the enrollment in agriculture teacher certification programs at the participating universities. Results show the majority of participants were females (50.8%). There were 59 participants of study which is displayed in Table 4-1.

Table 4-1

*Preservice Teacher Gender (N = 59)*

<table>
<thead>
<tr>
<th>Gender</th>
<th>$f$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>29</td>
<td>49.8</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>50.2</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Age

Age was another variable used to describe participants of study. The majority of students identified themselves as being 21 (33.9%) or 22 (33.9) years of age. The participants ranged in age from 21 to 27 years of age. Table 4-2 identifies the participants based off their age.
Table 4-2

Preservice Teacher Age (N= 59)

<table>
<thead>
<tr>
<th>Age</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>20</td>
<td>33.90</td>
</tr>
<tr>
<td>22</td>
<td>20</td>
<td>33.90</td>
</tr>
<tr>
<td>23</td>
<td>8</td>
<td>13.60</td>
</tr>
<tr>
<td>24</td>
<td>5</td>
<td>8.50</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>5.10</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>1.70</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>3.40</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Ethnicity

Ethnicity classification was another variable investigated in this study. Table 4-3 shows the various ethnic background indicated by the participants. The majority of participants identified themselves as white (89.8%) with the second largest group being Native Hawaiian or Pacific Islander (6.8%). The remaining participants reported being American Indian/Alaskan Native (1.7%). One participant (1.7%) did not report ethnicity and was removed from this portion of the study.
Table 4-3

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaskan Native</td>
<td>1</td>
<td>1.70</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>4</td>
<td>6.80</td>
</tr>
<tr>
<td>White</td>
<td>53</td>
<td>89.80</td>
</tr>
<tr>
<td>Total</td>
<td>58*</td>
<td>98.30</td>
</tr>
</tbody>
</table>

*Note. Data not analyzed on one due to participant error.

Another important demographic to classify the sample used was the number of semesters they were enrolled in agriculture courses in high school. The greatest amount (57.6%) of respondents indicated they were enrolled in seven to eight semesters of high school agriculture. The next largest percentage (16.9%) of respondents indicated they were enrolled in three to four semesters of agriculture in high school. Closely followed by eight respondents who indicated they were enrolled in three to five to six semesters (13.6%) of agriculture classes in high school, while six respondents indicated they had only one or two semesters (10.2) of high school agriculture. One respondent (1.7%) indicated that he/she had no agricultural science class in high school.

Another demographic evaluated to describe sample was college major. Respondents either responded as being enrolled in agriculture education or other major offered at their respected university. Of the 59 respondents 96.6 percent identified themselves as being enrolled with a major of agriculture education, while two participants (3.4%) identified were enrolled in another major besides agriculture education.
Additional demographic information was collected on academic standing of the preservice teachers. Academic standing of respondents were classified as undergraduates, postgraduates seeking only certification, postgraduates seeking certification and second undergraduate degree, graduate student seeking certification, but not a second degree, or graduate student seeking certification and graduate degree. The majority (98.3%) of participants indicated they were undergraduates. Of the participants under study one point seven percent indicated they were graduate student seeking certification and second degree. The final demographic under study was the participants past agricultural work experience. Agricultural work experience was classified as none, mostly avocational (e.g., assisting a friend “feeding cows” on an occasional weekend, planning and caring for a garden), part-time employment (e.g., working at the local feed store after school and on the weekends), full-time temporary employment, (one or more summers, in production or agribusiness setting), or full-time employment (for more than six months, in agricultural industry). Table 4-4 illustrates the participant’s agriculture work experience. The largest percentage (32.2%) of respondents indicated there work experience as being full-time employment for more than six months. Mostly avocational experience (25.4%) and fully time temporary employment (23.7%) were the next largest percentage reported by participants. One respondent (1.7%) indicated that they had no agricultural work experience. One participant (1.7%) failed to accurately indicate their agricultural work experience and was removed from this portion of analysis due to participant error.
Table 4-4

*Overall Participants Agricultural Work Experience (N= 58)*

<table>
<thead>
<tr>
<th>Agriculture Work Experience</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Mostly avocational</td>
<td>15</td>
<td>25.4</td>
</tr>
<tr>
<td>Part-time employment</td>
<td>9</td>
<td>15.3</td>
</tr>
<tr>
<td>Fully time temporary employment on or more summers</td>
<td>14</td>
<td>23.7</td>
</tr>
<tr>
<td>Full-time employment for more than six months</td>
<td>19</td>
<td>32.2</td>
</tr>
<tr>
<td>Total</td>
<td>58*</td>
<td>98.30</td>
</tr>
</tbody>
</table>

*One participant was removed for validity purposes.

**Graduation Plans**

Participants identified were asked to identify their plans after graduation; Table 4-5 shows the participants response. The majority (55.9%) of the respondents indicated that they wanted to teach agriculture science. Of those who responded 16.9 percent indicated that they were unsure of they wanted to do after graduation. While 15.3 percent of respondents indicated they wanted to continue their education in graduate school. The remaining participants indicated they wanted to either teach another subject (3.4%) or had plans to obtain other employment (3.4%). Three participants (5.1%) failed to accurately indicate their future plans and were removed from this portion of analysis. Table 4-5 illustrates participant plans after graduation.

40
Table 4-5

Preservice Teacher Graduation Plans (N= 56*)

<table>
<thead>
<tr>
<th>Graduation Plans</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teach Agricultural Science</td>
<td>33</td>
<td>55.90</td>
</tr>
<tr>
<td>Teach Another Subject</td>
<td>2</td>
<td>3.40</td>
</tr>
<tr>
<td>Continue Education (Grad School)</td>
<td>9</td>
<td>15.30</td>
</tr>
<tr>
<td>Other employment (including military)</td>
<td>2</td>
<td>3.40</td>
</tr>
<tr>
<td>Unsure</td>
<td>10</td>
<td>16.90</td>
</tr>
<tr>
<td>Total</td>
<td>56*</td>
<td>94.90</td>
</tr>
</tbody>
</table>

*Note Data was not analyzed on three due to participant error

To further investigate the preservice teachers’ plans after graduation the researcher investigated participants at the three different collection intervals O₁, O₂, and O₃ to see if there was a change in the preservice teachers’ plans after graduation. Table 4-6 illustrates the participant’s response at the three collection intervals. At the first collection point O₁ the mean was 3.82 (M = 4.82, SD = 3.91). The mean at collection point two O₂ was 3.91 (M = 3.91, SD = 1.51). While the third collection point produced a mean of 4.01 (M = 4.01, SD = 1.41). The participants were asked to identify their plans after graduation using a multiple choice style question. The participants were given five choices to identify their plans. Ten participants indicated they were unsure about their future plans, two indicated they were seeking other employment including military, three indicated they were going to continue their education in graduate school, four indicated they were going to teach another subject, and five indicated they were going to teach agriculture science. At measurement one, which was taken place at the beginning of the preservice teaching experience, the preservice teachers indicated they were
more likely to continue their education in graduate school or was unsure of their future plans. At the third measurement, which was taken at the end of the preservice teaching experience, the preservice teachers indicated they were more likely to teach another subject or teach agriculture education.

Table 4-6

| Plans After Graduation Per Measurement Period (N = 48) |
|-----------------|----------------|----------------|
| Measurement     | 1st Measurement | 2nd measurement | 3rd measurement |
| M               | SD              | M              | SD             | M              | SD             |
| 3.82            | 1.56            | 3.91           | 1.51           | 4.01           | 1.41           |

*Note. Data not analyzed on eleven due to participant error

Agricultural Science Teaching

Another demographic characteristic that was important to this study was the preservice teachers’ willingness to accept a position teaching agricultural science. The preservice teachers identified themselves as defiantly yes, yes, unsure, definitely no, no. Table 4-7 illustrates the response of the preservice teacher on their willingness to teach agricultural science. A majority (69.5%) of the respondents indicated as definitely yes they would take a job teaching agriculture science. 20.3 percent of the respondents indicated that yes they would take a job teaching agricultural education. The remaining respondents (10.2%) indicated they were unsure if they would accept a job teaching agriculture education.
Table 4-7

*Overall Willingness to Accept an Agriculture Teaching Position (N = 59)*

<table>
<thead>
<tr>
<th>Agriculture Teaching Position</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely Yes</td>
<td>41</td>
<td>69.50</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>20.30</td>
</tr>
<tr>
<td>Unsure</td>
<td>6</td>
<td>10.20</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

To further investigate the student teachers willingness to teach agriculture science the research looked at the change in the participants willingness to teach agriculture at the three different collection intervals O₁, O₂, and O₃. Table 4-8 illustrates the participant’s willingness to each agricultural science at the three collection points throughout the study. At the first collection point O₁ the mean was 4.5 ($M = 4.59, SD = .68$). The mean at collection point two O₂ was 4.4 ($M = 4.42, SD = .93$). While the third collection point produced a mean of 4.2 ($M = 4.25, SD = 1.08$). Proving that the overall willingness to teach agriculture science decrease from the beginning of the semester to the end of the preservice teaching experience.

Table 4-8

*Willingness to Teach Agriculture Education Per Measurement Period (N = 59)*

<table>
<thead>
<tr>
<th></th>
<th>1st Measurement</th>
<th>2nd measurement</th>
<th>3rd measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>4.59</td>
<td>.67</td>
<td>4.42</td>
<td>.93</td>
</tr>
</tbody>
</table>
Results

Objective One

Research objective one was to describe if teaching efficacy of preservice teachers change when the cooperating teacher uses a communication tool. Table 4-9 show the overall teaching efficacy at each university who participated in this study. The data shows that teaching efficacy is different from one group of student teachers to the next.

Table 4-9

<table>
<thead>
<tr>
<th>University</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas (2013)</td>
<td>15</td>
<td>7.16</td>
<td>1.13</td>
</tr>
<tr>
<td>Georgia-Athens (2013)</td>
<td>12</td>
<td>6.90</td>
<td>.63</td>
</tr>
<tr>
<td>Georgia Tifton (2013)</td>
<td>8</td>
<td>7.23</td>
<td>.50</td>
</tr>
<tr>
<td>Arkansas (2012)</td>
<td>12</td>
<td>6.81</td>
<td>.79</td>
</tr>
<tr>
<td>Georgia (2012)</td>
<td>12</td>
<td>7.10</td>
<td>.55</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>7.03</td>
<td>.78</td>
</tr>
</tbody>
</table>

Objective Two

Describe the student teacher perceptions towards teaching change when cooperating teachers’ use a communication tool. Table 4-10 show the overall teaching efficacy at each university who participated in this study. The data shows that preservice teachers’ perception of teaching changes is different from one group of student teachers to the next.
Table 4-10

*Overall Perception of Teaching per University (N = 59)*

<table>
<thead>
<tr>
<th>University</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas (2013)</td>
<td>15</td>
<td>4.23</td>
<td>.21</td>
</tr>
<tr>
<td>Georgia-Athens (2013)</td>
<td>12</td>
<td>4.33</td>
<td>.25</td>
</tr>
<tr>
<td>Georgia Tifton (2013)</td>
<td>8</td>
<td>4.1</td>
<td>.18</td>
</tr>
<tr>
<td>Arkansas (2012)</td>
<td>12</td>
<td>4.1</td>
<td>.28</td>
</tr>
<tr>
<td>Georgia 2012</td>
<td>12</td>
<td>4.3</td>
<td>.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>4.26</td>
<td>.23</td>
</tr>
</tbody>
</table>

**Objective Three**

Research objective three described the difference in overall teaching efficacy and student teacher cooperating teacher relationships between multiple universities. To address this objective three hypothesis were examined.

**Hypothesis One**

Hypothesis one stated that there will be no significant difference in teaching efficacy based on cooperating teachers’ use of a communication tool between universities. The independent variable under examination was the communication tool, while the dependent variable was student teachers teaching efficacy. To determine if a difference existed in teaching efficacy an ANOVA was used. Table 4-11 displays the analysis results. The overall model was not significant (Between Groups, $f = .58$ and $p = .69$). The null hypothesis was accepted.
Table 4-11

ANOVA of Overall Teaching Efficacy (N = 58)

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>f</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4</td>
<td>1.43</td>
<td>.37</td>
<td>.57</td>
<td>.69</td>
<td>.04</td>
</tr>
<tr>
<td>Within Groups</td>
<td>54</td>
<td>33.93</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>35.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis Two

Hypothesis two stated that there will be no significant difference in student teachers’ perceptions towards teaching when cooperating teachers’ use a communication tool. The dependent variable under examination was student teachers perceptions of teaching. The independent variable under study was the communication tool used by cooperating teachers. To determine if a difference existed in student teachers perceptions towards teaching an ANOVA was used. Table 4-10 displays the analysis results. The overall model was not significant (Between Groups, $f = 1.63$ and $p = .18$). The null hypothesis was accepted.

Table 4-12

ANOVA of Overall Student Teacher Perception of Teaching (N = 58)

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>f</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4</td>
<td>.33</td>
<td>.08</td>
<td>1.63</td>
<td>.18</td>
<td>.11</td>
</tr>
<tr>
<td>Within Groups</td>
<td>54</td>
<td>2.70</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>3.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Null Hypothesis Three

Null Hypothesis three stated that no significant difference will be found between universities based on overall teaching efficacy and student teacher cooperating teacher ratings. To determine if there was difference in teaching efficacy and student teachers/cooperating teacher relationship a MANOVA was used to test the hypothesis. The dependent variables under study include teaching efficacy and student teachers’ perceptions of their relationship at multiple universities. The use of the communication tool by the cooperating teacher was the independent variable under examination. Table 4-13 illustrates the effects of the independent variable (structured communication) upon the dependent variables (TE) and (RL) measured at three points throughout the preservice teaching experience. A Pilia’s Trace significance value of .149 with an $f = 1.55$. Effect size calculated at .10 and power at .66. The overall model was not significant therefore the null hypothesis was accepted.

Table 4-13

<table>
<thead>
<tr>
<th>MANOVA Analysis of Teaching Efficacy and Student Teacher/Cooperating Teacher Relationship ($N = 58$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>df</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Model</td>
</tr>
<tr>
<td>TE</td>
</tr>
<tr>
<td>RL</td>
</tr>
<tr>
<td>Error</td>
</tr>
<tr>
<td>TE</td>
</tr>
<tr>
<td>RL</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>TE</td>
</tr>
<tr>
<td>RL</td>
</tr>
</tbody>
</table>
Chapter Summary

This chapter presented the findings acquired from this study done by the research objectives and hypothesis. Demographic information used to describe participants of this study was discussed in order to provide an accurate description of all \( N = 59 \) participants. The result presented addresses they hypothesis under investigation by examining the effects of teaching efficacy and preservice teachers willingness to teach agriculture education when the cooperating teacher uses a communication tool.

The majority (50.8%) of the participants were females that were either 21 (33.9%) or 22 (33.9%). The participants under study indicated a majority of their ethnicity was white (89.8%). In terms of their plans for after graduation, a large percent (55.9%) indicated they were planning to teach agriculture science if offered a suitable position. The participants also indicated that a majority (69.5%) of those under study would yes defiantly take a job teaching agricultural sciences. Participants also indicted that a large percentage (57.6%) of those under study had seven to eight semesters of agriculture in high school, while the majority (98.3%) also indicated their academic standing as undergraduates. Agricultural work experience was also used to describe participants with the largest percentage (32.2%) of participate indicating they were full-time employees for more than six months.

This chapter also included the testing of the three hypotheses presented and provided the results to either accept or reject the null hypotheses. Null hypothesis one data analysis produced an overall model that was not significant (Between Groups, \( f = .568 \) and \( p = .687 \)), therefore the null hypothesis was accepted. After analyzing the data for hypothesis two the overall model indicated there was not significant between groups (\( f = 1.631 \) and \( p = .180 \)). The null hypothesis
was accepted. The third hypothesis analysis reviled the effects of the independent variable (structured communication) upon the dependent variables (TE) and (RL) measured at three points throughout the preservice teaching experience at multiple universities. The overall model was not significant therefore the null hypothesis was accepted.
CHAPTER V

Conclusion, Implications, and Recommendations

The results discovered through hypothesis testing indicated if student teachers perceptions of their teaching efficacy changed throughout the preservice teaching experience when the cooperating teacher used a communication tool. The finding of this study are summarized in this chapter using the hypotheses presented in chapter one.

Summary of Results

Null Hypothesis One

Data analysis revealed there was no significant difference in teaching efficacy based on cooperating teachers’ use of a communication tool between universities. An ANOVA procedure was used to test this hypothesis. The overall model was not significant between groups, \( f = .57 \) and \( p = .69 \). Null hypothesis one was accepted.

Null Hypothesis Two

The data revealed there was no significant difference in student teachers’ perceptions towards teaching when cooperating teachers’ use a communication tool. The dependent variable under examination was student teachers perceptions of teaching. The independent variable under study was the communication tool used by cooperating teachers. To determine if a difference existed in student teachers perceptions towards teaching an ANOVA was used to test the hypothesis. The overall model was not significant between groups \( f = 1.63 \) and \( p = .18 \). The null hypothesis was accepted.
Null Hypothesis Three

Tschannen-Moran et al., (1998) realized that many student teachers lack the understanding or complexity of teaching. Therefore, student teachers expectations change because their roles change and realize their expectation of students in the learning environment and actual student commitment to learning are different causing gaps between teacher and learner (Edgar, 2007). Data analysis proved that there was no significant difference will be found between universities based on overall teaching efficacy and student teacher cooperating teacher ratings. The goal of the data analysis was to determine the effect of the independent variable (structured communication) upon the dependent variables (TE) and (RL) measured at three points throughout the preservice teaching experience at multiple universities. A Pilia’s Trace significance value of .149 with an $f = 1.55$. Effect size calculated at .10 and power at .66. The overall model was not significant therefore the null hypothesis was accepted.

Conclusions

Because the sample (student teachers enrolled in the field experience at the University of Arkansas and the University of Georgia) under study was not randomly selected, the following conclusions were drawn on based on the findings and apply only to the population of this study.

1. When cooperating teachers use a communication tool during the preservice teaching experience there is no overall significant difference in preservice teachers’ teaching efficacy at multiple universities.

2. When cooperating teachers use a communication tool during the preservice teaching experience there tends to be no overall significant difference in preservice teachers’ perceptions towards teaching at multiple universities.
3. When cooperating teachers’ use a communication tool during the preservice teaching experience there tends to be no significant difference in teaching efficacy based off the student teachers/cooperating teacher relationship between the University of Arkansas and the University of Georgia. Therefore, the major result of this study was that the communication tool did not have a significant effect on the preservice teaching experience.

**Discussion and Implication**

It has been found that the most important factor during the student teaching experience was the cooperating teacher (Robinson et al., 2007). The purpose of this study was to assess teaching efficacy and the relationship of student teacher and cooperating teacher through a structured communication instrument at multiple universities. Because previous findings (Edgar, 2007) did not find significance when structured communication was utilized during field experiences of teacher candidates, further exploration at other universities was sought to determine if the findings were different based on the selection and location of the previous study.

**Null Hypothesis One**

There was no significant difference in teaching efficacy based on cooperating teachers’ use of a communication tool between universities. Teaching efficacy was originally defined by Berman et al. (1977) as “the extent to which a teacher believes he or she has the capacity to affect student performance” (p. 137). Edgar et al. (2011) added that teaching efficacy was more of a personal factor. Even though there no significance was found, through ANOVA analysis, in teaching efficacy when the cooperating teacher used a communication tool it should be noted that preservice teachers’ efficacy increased from the beginning of the student teaching
experience to the end of the preservice teaching experience. Further results did show that preservice teacher efficacy had high teaching efficacy at the beginning of the student teaching experience. At the mid-semester collection point the preservice teachers’ teaching efficacy was lower than at the first collection point while increase to a higher level of teaching efficacy at the final collection point. This is consistent with research conducted by Edger (2007). This helps support the idea that teaching efficacy plays a major role in preservice teachers’ willingness to obtain a job in the field of teaching.

Roberts et al. (2007) suggested that teachers who believe strongly in their teaching efficacy will be more likely to foster self-efficacy in their students through development of challenging and engaging learning environments. From their research Roberts et al. (2007) quickly realized that student teachers communication with their cooperating teacher play’s a key role in the overall teaching efficacy and preservice teaching experience. Student teacher expectations change because their roles change and realize their expectation of students in the learning environment and actual student commitment to learning are different causing gaps between teacher and learner (Edgar, 2007).

Previous research by Roberts et al. (2007) suggested that teachers who perceive themselves with higher teaching efficacy will be more likely to foster self-efficacy in their students through development of challenging and engaging learning environments. Although results did not indicate significance towards efficacy when a communication tool was implemented limitations to the research design was found. The main limitation in terms of looking a teaching efficacy among preservice teachers was the sample size ($N = 59$) not being large enough to help support the idea that the communication tool that was implemented had an
effect on teaching efficacy. Research suggests that securing a larger sample size would help to validate if there was a difference in perceptions of the relationship between cooperating teachers and preservice teachers. If future research is conducted based off this study, it is recommended to use multiple universities (> 5) to help limit the mistake of not having a large enough sample size. Further advice to future investigations would be to designate a stable control group to compare findings with. Likewise consistent contact with participating universities and defined protocols will assist in the research project and data collection that could help increase sample size.

**Null Hypothesis Two**

Data analysis proved there was no significant difference in student teachers’ perceptions towards teaching when cooperating teachers’ use a communication tool. The dependent variable under examination was student teachers perceptions of teaching. To determine if a difference existed in student teachers perceptions towards teaching an ANOVA was used.

Although the study did not revile any significant difference in perceptions towards teaching it can help determine why individuals choose a career in agriculture education. Previous research by Ryan and Deci (2000), agriculture educators are not intrinsically motivated. Ryan and Deci (2000) support the idea that internal motives typically don’t play a role in an individual’s reasoning for pursuing a career as an agriculture educator. Shoulders and Myers (2011) concluded that beliefs come from various areas of an individual’s life. Shoulders and Myers (2011) also noted that social beliefs shape a professional’s identity and is one factor of why they are motivated to teach. In order to further examine student teachers perception of teaching the use of demographic information was used to analyze willingness to teach.
agricultural science as well as their plans after graduation. In terms of willingness to teach agricultural science the participants had a higher likelihood to teach agriculture science at the beginning of the student teaching, while there was decrease in willingness to teach by the end of the student teaching experience. The preservice teachers’ plans after graduation leads the researcher to believe that the preservice teaching experience provides actual work experience and opens up other possibilities for the student teachers who realize they are not ready to teach just yet. The data analysis of plans after graduation indicated that preservice teachers were more likely to teach agriculture right after graduation but by the end of the student teaching experience the participants were unsure of their plans after graduation.

Three major influences can be attributed to the decline in student teachers’ willingness to teach after graduation. These influences include the relationship with their cooperating teachers, their personal belief of their teaching efficacy, and the overall preservice teaching experience. The results lead the research to believe that student teachers were more willing to accept a teaching position if they have a positive preservice teaching experience. This was consistent with previous research conducted by Roberts et al. (2007).

Even though the research was consistent with previous research the results were not what were expected. In investigating why these results were different the main explanation was that by using the communication tool the preservice teachers were getting direct feedback about their teaching style from their cooperating teachers. The direct feedback could have led a change in teaching efficacy which made the preservice teacher realize if they wanted to teach agricultural education. Another explanation for the why the data was not as expected would be overall preservice teaching experience. In college, students enrolled in education programs with
certification are exposed to the classroom from starting with their freshmen year. They see different aspects of the classroom throughout their undergraduate experience and this could make them realize if they want to teach or not. During the preservice teaching experience students get the hands on experience of controlling their own classroom and this will overwhelm some students while other will thrive in this environment. The environmental aspect of reciprocal determinism as it is related to agriculture supports the idea that the environment in the classroom affects willingness to teach.

**Null Hypothesis Three**

Determinism as considered by Bandura (1978) “understood actions determined by a sequence of influences.” Reciprocal determinism is used in the study to examine the cyclical nature of the student teaching experience (behavior), age, gender, teaching efficacy (personal factors), and relationship between cooperating teacher and student teacher (environment). The concept of reciprocal determinism is the major component of the social cognitative theory which is used at foundation theory for this study. For hypothesis three there will be no significant difference found between universities based on overall teaching efficacy and student teacher cooperating teacher ratings. A MANOVA was used to test they hypothesis to determine if there was difference in teaching efficacy and student teachers/cooperating teacher relationship. Even though no significant was found it should be noted that the personal factors, behavior, and the environment has the potential effect the overall preservice teaching experience. (Lawver & Torres, 2011).

To better understand the effects of the communication tool the components of the structured communication form was examined. This study identified the receiver will be the
student teacher, because the student teacher is the intended receiver of the information given through structured communication. Feedback is given through the communication tool and it is the job of the receiver/student teacher to take the feedback and decide what needs improvement and what feedback information can be ignored.

Roberts et al. (2006) concluded that student teachers’ perceptions of the relation between cooperating teachers and student teachers were not an indicator of the student teachers’ desire to teach. Therefore, it was important to note that the relationship between cooperating teachers and student teachers will change from time to time throughout the preservice teaching experience (Roberts et al, 2006). Even though no significance was found in between universities on teaching efficacy when the cooperating teacher uses the communication tool, it should be noted that the overall relationship with the student teacher has the possibility to effect the student teachers willingness to teach agriculture after graduation.

Although the model was not significant it can be used to help explain how teaching efficacy is affected by the relationship level of the cooperating teacher and student teachers. Research by Roberts et al. (2006) examined student teachers as they develop throughout the student teaching experience. They concluded that student teachers’ perceptions of the relation between cooperating teachers and student teachers were not an indicator of the student teachers’ desire to teach. This is consistent with the data of this research project. The relationship of cooperating teachers and student teachers can be used to explain that a students’ perceived teaching efficacy and age was a positive factor in the relationship between student teacher and cooperating teachers.
After looking at two universities and finding results that indicate that the communication tool does not influence to a significant difference in the relationship between cooperating teacher and teaching efficacy it can be asssed that there are more factors that affect the preservice teaching experience. Therefore, the research suggest that by looking at exactly at what factors preservice teachers place more value in, would help lead future research into determining how preservice teachers perceive the overall preservice teaching experience and how those perceptions are related to teaching efficacy.

**Recommendation**

The study was conducted with the fundamental research of reciprocal determinism which is explained by Schunk (2000) as “triadic reciprocity or reciprocal interaction among behavior, environmental variables, and personal factors” (p.80). Reciprocal determinism is used in the study to examine the cyclical nature of the student teaching experience (behavior), age, gender, teaching efficacy (personal factors), and relationship between cooperating teacher and student teacher (environment). Further research should be conducted to see the direct effects of the behaviors, personal factors, and the environment of preservice teaching. By determining the specific factors that affect preservice teachers universities could help increase the level of teaching efficacy once factors that affect teaching efficacy. It is also suggested that future research be conducted to define the specifics of the behavioral factors, environmental, and personal factors in terms of agriculture education. Previous research by Knobloch (2002) identified the personal factors as perception of teacher education program, high school agricultural education involvement, summer involvement with students. The environmental factors as explained by Knobloch (2002) included principal support, academic emphasis,
perception of student teaching, cooperating teacher competence and support number of students and class preparations. These factors were more specific for first year teachers but a lot of these factors could help lead future research as in terms of preservice teaching.

It is recommended that this study be replicated as longitudinal research project to see if there is a correlation between the student teacher relationship and teaching efficacy between multiple universities over time. This recommendation would allow for research to attempt pinpointing exactly what is the factor that affects the preservice teaching experience which ultimately affects the overall student teachers willingness to pursue a career in the educational field.

Research has been conducted on the relationship between cooperating teachers and student teachers in the southwest (Texas, Arkansas, Oklahoma, and Georgia) part of the United States for several years. It is recommended that research be conducted in other geographical areas of the United States to see if there is a difference in the relationship between cooperating teachers and student teachers based off geographical location. Geographical research should also be conducted to see if the overall student teaching experience is correlated to geographical region as well to see if there is a relationship between geographical location and the student teachers willingness to pursue a teaching career. In order to successfully conduct research on a larger scale with several universities the researcher suggests preparing for more universities than is needed in order to assure the sample size is larger. The research also suggest with future research on based on geographical location is to stay in contact with lead researchers at different universities on a monthly basis to make sure data is being collected properly to try and have the highest response rate possible.
It is also recommended that research be conducted to see if there is a significant
difference in teaching efficacy and the relationship between cooperating teacher and student
teacher between different preservice experiences among different educational colleges. An
dexample of a research project would be seeing if the relationship between cooperating teachers
and student teachers was significantly different in students who are enrolled in the preservice
teaching experience in agriculture education as compared to those enrolled in early education
 preservice teaching experience. This research could also be conducted at multiple universities.

Although efficacy has been research thoroughly in agricultural education and it is known
that the relationship between cooperating teachers and preservice teachers is very important,
communication between these two entities could prove to be a valuable link to preservice
teachers entering the profession and hopefully, having a successful career. It is important that
this relationship prove valuable and positive experiences. The premise of this study was to
explain important aspects of the relationship during this important time. Although no statistical
evidence was found, the importance of communication between professionals and future
professionals is important and needs further investigation to further determine important aspects.

Another recommendation is to extend this study to look at the student teachers teaching
efficacy once they have received a job in the field of education. The basis for this study could be
based off the idea that teaching efficacy is high at the beginning of the preservice teaching
experience decreases until about middle of the student teaching experience with an increase in
efficacy towards the end of the preservice teaching experience. The researcher questions if the
student teachers teaching efficacy would continue to increase once they have received a teaching
job. Previous research shows the “U” shape nature of teaching efficacy, high at the beginning of
teaching and lowers at during the student teaching experience then rebounding back to a high level after they have been profession for a few years. This could help explain why there was no significant difference throughout this study because participants still haven’t had the time to rebound from the preservice teaching experience.
References


APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

December 7, 2011

MEMORANDUM

TO: Christopher Hunt
    Don Edgar
    George Wardlow

FROM: Ro Windwalker
      IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 11-10-187

Protocol Title: PRESERVICE CANDIATES’ RATING OF EFFICITIVENSS IN AGRICULTURAL EDUCATION THROUGH STRUCTURED COMMUNICATION WITH COOPERATINGTEACHERS

Review Type: ☑ EXEMPT ☐ EXPEDITED ☐ FULL IRB

Approved Project Period: Start Date: 12/07/2011  Expiration Date: 12/06/2012

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form Continuing Review for IRB Approved Projects, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (http://vpred.uark.edu/210.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 180 participants. If you wish to make any modifications in the approved protocol, including enrolling more than this number, you must seek approval prior to implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu
APENDIX B

PRESERVICE TEACHER EXPERIENCE QUESTIONNAIRE

Pre-service Teacher Experience Questionnaire

(PTEQ)
Thank you for participating in this important research project. The student teaching experience is an important component of your preparation as an agricultural science teacher.

Understanding your perceptions about important aspects of the student teaching experience is critical to making critical adjustments for future student teachers.

Your responses are confidential. Only the research team will have access to your individual responses.

Please read and follow the directions for each section of the questionnaire.
### Section I. Perceptions of the Cooperating Teacher

**Directions:** This section is designed to help us gain a better understanding of your perceptions of the **importance** and **current level** of your cooperating teacher. Please indicate your opinion about the **importance** and **current level** for each of the statements below. Your answers are confidential.

<table>
<thead>
<tr>
<th>How important is it?</th>
<th>Cooperating Teacher Characteristics</th>
<th>What level does my cooperating teacher exhibit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (1) High (5)</td>
<td>1. Exhibits enthusiasm for subject</td>
<td>Low (1) High (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>2. Demonstrates good knowledge of</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>the subject matter</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>3. Maintains a good balance between</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>classroom, FFA &amp; SAE</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>4. Possesses good classroom</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>management skills</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>5. Enforces a well defined discipline</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>policy</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>6. Teaches effectively in the</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>classroom</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>7. Teaches effectively in</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>laboratories</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>8. Advises the local FFA chapter</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>effectively</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td>(1) (2) (3) (4)</td>
<td>9. Supervises SAE programs</td>
<td>(1) (2) (3) (4)</td>
</tr>
<tr>
<td></td>
<td>effectively</td>
<td>(1) (2) (3) (4)</td>
</tr>
</tbody>
</table>

Continue →
### Section I. (cont.)

**Professionalism**

<table>
<thead>
<tr>
<th>How important is it?</th>
<th>Cooperating Teacher Characteristics</th>
<th>What level does my cooperating teacher exhibit it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>(1)          (2)          (3)          (4)          (5)</td>
<td>(1)          (2)          (3)          (4)          (5)</td>
</tr>
<tr>
<td>High</td>
<td>(1)          (2)          (3)          (4)          (5)</td>
<td>(1)          (2)          (3)          (4)          (5)</td>
</tr>
<tr>
<td>1. Loves his/her job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Exhibits a positive attitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Exhibits professionalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Serves as a good role model for me as a prospective teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Demonstrates good knowledge of school policies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Recognized by other teachers and administrators as a good faculty member at their school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Establishes good relationships with administrators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Establishes good community relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Has good interpersonal skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Communicates effectively</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue ➔
### Section I. (cont.)
#### Personality

<table>
<thead>
<tr>
<th>How important is it?</th>
<th>Cooperating Teacher Characteristics</th>
<th>What level does my cooperating teacher exhibit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Co-operating Teacher Characteristics</td>
<td>Low</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>1. Patient</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>2. Fair</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>3. Dependable/reliable</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>4. Cooperative</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>5. Sense of humor</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>6. Caring</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>7. Respectful</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>8. Open-minded</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>9. Trustworthy</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td>10. Organized</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
</tbody>
</table>

Continue →
Section I. (cont.)

Cooperating Teacher/Student Teacher Relationship

<table>
<thead>
<tr>
<th>How important is it?</th>
<th>Cooperating Teacher Characteristics</th>
<th>What level does my cooperating teacher exhibit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>1. Encourages me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gives me freedom to try things</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Turns classes over to me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supports decisions made by me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Helps me plan lessons and activities</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Routinely observes me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Provides constructive feedback to me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Provides a variety of experiences for me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Assists me when needed</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Treats me as a fellow professional</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Anticipates my needs</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Provides clear expectations to me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Shares resources with me</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Assists me in finding a job</td>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
</tr>
<tr>
<td>(1) (2) (3) (4) (5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section II. Teaching Efficacy

Directions: This section is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
<th>Very Low</th>
<th>Very Low</th>
<th>Some</th>
<th>Quite</th>
<th>A Bit</th>
<th>A Give-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to get through to the most difficult students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>2. How much can you do to help your students think critically?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>3. How much can you do to control disruptive behavior in the classroom?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>4. How much can you do to motivate students who show low interest in school work?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>5. To what extent can you make your expectations clear about student behavior?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>6. How much can you do to get students to believe they can do well in school work?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>7. How well can you respond to difficult questions from your students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>8. How well can you establish routines to keep activities running smoothly?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
</tbody>
</table>

Continue
### Section II. (cont.)

<table>
<thead>
<tr>
<th>How much can you do?</th>
<th>Nothing</th>
<th>Very Little</th>
<th>Some Influence</th>
<th>Quite Able</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. How much can you do to help your students value learning?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>10. How much can you gauge student comprehension of what you have taught?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>11. To what extent can you craft good questions for your students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>12. How much can you do to foster student creativity?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>13. How much can you do to get children to follow classroom rules?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>14. How much can you do to improve the understanding of a student who is failing?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>15. How much can you do to calm a student who is disruptive or noisy?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>16. How well can you establish a classroom management system with each group of students?</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

Continue ➔
### Section II. (cont.)

<table>
<thead>
<tr>
<th>Question</th>
<th>How much can you do?</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. How much can you do to adjust your lessons to the proper level for individual students?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>18. How much can you use a variety of assessment strategies?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>19. How well can you keep a few problem students from ruining an entire lesson?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>20. To what extent can you provide an alternative explanation or example when students are confused?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>21. How well can you respond to defiant students?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>22. How much can you assist families in helping their children do well in school?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>23. How well can you implement alternative strategies in your classroom?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>24. How well can you provide appropriate challenges for very capable students?</td>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
</tbody>
</table>

Continue →
Section II. (cont.)

1. If you were offered a suitable agricultural science teaching position in a community of your choice, would you take it?
   A. Definitely Yes  C. Unsure  E. No
   B. Yes  D. Definitely No

2. What are your plans after graduation?
   A. Teach Agricultural Science  D. Other employment (including military)
   B. Teach another subject  E. Unsure
   C. Continue education (grad school)

3. In high school, how many semesters of agricultural science courses did you complete?
   A. None  C. 3-4  E. 7-8
   B. 1-2  D. 5-6

4. Current Major
   ____________________________

5. Are you currently a/an?
   A. undergraduate
   B. postgraduate seeking only certification
   C. postgraduate seeking certification and second undergraduate degree
   D. graduate student seeking certification, but not a graduate degree
   E. graduate student seeking certification and graduate degree

6. Race/Ethnicity
   A. American Indian or Alaskan Native
   B. Asian
   C. Black or African American
   D. Hispanic/Latino
   E. Native Hawaiian or Other Pacific Islander
   F. White

7. Besides your formal education, which would best describe your agricultural work experience?
   A. None
   B. Mostly avocational (e.g., assisting a friend “feeding cows” on an occasional weekend, planting and caring for a garden)
   C. Part-time employment (e.g., working at the local feed store after school and on weekends)
   D. Full-time temporary employment, one or more summers, in a production or agribusiness setting
   E. Full-time employment, for more than six months, in agricultural industry

8. University
   ____________________________

9. Gender
   A. Male
   B. Female

10. Age (Years) ____

STOP
Thank you.

Primary 4 Teacher Experience Questionnaire
Appendix C
Bi-Weekly Communication Form

<table>
<thead>
<tr>
<th>Accomplished Practices</th>
<th>ST Rating</th>
<th>CT Rating</th>
<th>Comments/Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous Improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Thinking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Development &amp; Learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject Matter Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Environments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role of the Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rating: O - Outstanding, A - Accomplished, P - Progressing, N1 - Needs Improvement, NA - Not Applicable or observed

Signature of Student Teacher

Signature of Cooperating Teacher

Print Form
Accomplished practices are competencies the student teacher should demonstrate during the student teaching experience. The cooperating teacher should communicate strengths and areas for improvement to the student teacher so that they can reflect on those practices and work on ways to improve. This feedback from the cooperating teacher will allow the student teacher to become a more proficient teacher.

Rating Scale:

O = Outstanding: The student teacher demonstrates the skills consistently in an exemplary manner.
A = Accomplished: The student teacher demonstrates the skills consistently in an acceptable manner.
P = Progressing: The intern is showing adequate progression toward the demonstration of this practice. There has been shown continual improvement.
NI = Needs Improvement: The student teacher demonstrates the skills ineffectively or a serious absence of these skills are observed. The student teacher needs guidance and improvement in this area.
NA = Not Applicable or observed for this observation/evaluation. There is not enough data to make a judgment or no opportunity to observe these skills.

Indicators for each Accomplished Practice:

Assessment:
- Collects information about the students from various sources
- Is familiar with alternative types of measurements
- Communicates student progress to students, parents, and staff
- Uses results of assessments to individualize learning
- Modifies instruction based on learning assessments
- Keeps records to monitor student progress

Communication:
- Communicates high expectations to learning to students
- Practices strategies that support individual and group activities
- Provides constructive feedback to students
- Varies communication depending on student needs
- Communication with colleagues, families, and administrators
- Establishes positive interactions between teacher and students that are focused on learning

Continuous Improvement:
- Works to continue the development of his/her own background in instructional methodologies, learning theories, second language acquisition theories, trends and subject matter
- Participates in training and other professional development experiences
- Works as a reflective practitioner and develops the skills to recognize problems, research solutions and evaluate outcomes.

Critical Thinking:
- Teaches critical thinking skills to students
- Provides opportunities for students to expand their problem solving and critical thinking skills
- Uses discussion, group interactions and writing to encourage student problem solving
- Poses problem, dilemmas and questions in lessons
Diversity:
✓ Accepts and values students from diverse cultures and linguistic backgrounds
✓ Treats diverse students equitably
✓ Creates a climate of mutual respect in the classroom
✓ Uses materials and resources that are multicultural
✓ Provides a range of activities for students with different cultures and experiences

Ethics:
✓ Encourages students to think independently
✓ Provides students access to different points of view
✓ Attempts not to distort nor misrepresent facts
✓ Protects students from conditions harmful to learning or to their mental and physical health
✓ Maintains honesty, confidentiality and integrity in all use of information and professional decisions.
✓ Provides quality education to students regardless of race, color, religion, age, national or ethnic origin, political beliefs, marital status, handicapping condition(s) or family or linguistic background.
✓ Recognizes ethical standards and strives for personal improvement

Human Development and Learning:
✓ Recognizes developmental levels among groups of students
✓ Uses multiple activities and alternative instructional strategies to engage and motivate students
✓ Varies activities to accommodate different student learning needs, developmental levels, and experiential backgrounds
✓ Recognizes and captures learning theories, subject matter structure, curriculum development, student development, and first/second language acquisition processes in lesson development

Subject Matter Knowledge:
✓ Uses robust understanding of subject matter to enable students to learn
✓ Provides examples when explaining subject matter content
✓ Uses inquiry and critical analysis within instruction
✓ Presents content in clear, challenging and compelling ways
✓ Uses materials and technologies of subject matter to integrate learning activities
✓ Acquires currency in subject field

Learning Environments:
✓ Establishes smooth and efficient routines
✓ Uses effective classroom management strategies
✓ Establishes standards for behavior and responds clearly, firmly and consistently to inappropriate behavior
✓ Uses learning time efficiently
✓ Provides clear directions and timely feedback for class work and homework

Planning:
✓ Analyzes and selects content and learning outcomes related to state, national and local standards
✓ Identifies student performance outcomes in planning
✓ Cooperatively works with colleagues in planning instruction
✓ Promotes study skills and test-taking strategies
✓ Accesses information from multiple resources
✓ Uses a variety of support and enrichment materials and activities

Role of the Teacher:
✓ Serves as a leader and an advocate for students
✓ Gives feedback on student progress to students & families
✓ Recognizes signs of emotional stress, child abuse, alcohol or drug abuse
✓ Knows procedures for reporting cases of stress or abuse
✓ Uses community/family context in developing learning activities and instructional strategies

Technology:
✓ Uses appropriate technology on a personal basis
✓ Uses electronic networks to gather information
✓ Teaches all students to use available technology
✓ Uses technology to assist in classroom management
✓ Selects appropriate educational software
✓ Uses, adapts and/or designs technology enhanced instruction to meet student needs and learning goals
Appendix D
Consent Form Student Teachers

Preservice candidates' ratings of effectiveness in agricultural education through structured communication with cooperating teachers

You have been asked to participate in a research study to evaluate the effects of communication tools reports upon preservice and cooperating teacher relationships. You were selected to be a possible participant because you are enrolled in AGED 475V for spring semester of 2012 at the University of Arkansas. This study will look to identify the effects of a communication tool towards teacher efficacy and preservice/cooperating teacher relationships.

If you agree to be in this study, you will be asked to submit bi-monthly evaluation reports and meet with your cooperating/preservice teacher bi-monthly. This communication tool can be completed via web based reporting or submitted through regular mail by forms provided to the preservice teacher. This study will encompass the 11 weeks of the preservice teacher training during the spring of 2012. There are no apparent risks involved with this study. The benefits of participation are to determine the need of evaluation forms and their effects upon preservice/cooperating teacher efficacy.

All records will be kept confidential to the extent allowed by law and University policy and all information gained will be coded by the researcher and other identifying information will be removed from the form. The linking code between participants’ name and responses will be destroyed within six months of final collection. No identifiers linking you to the study will be included in any sort of report that might be published. Research records will be stored securely and only Christopher L. Hunt will have access to the records. Your decision whether or not to participate will not affect your current or future relations with the University of Arkansas. If you decide to participate, you are free to refuse to answer any of the questions that may make you uncomfortable. You can withdraw at any time without your relations with the University, job, benefits, etc., being affected. You can contact Christopher L. Hunt (479) 575-6797 or Don Edgar (479) 575-2037, with any questions about this study.

This research study has been reviewed by the Institutional Review Board at University of Arkansas. For research-related problems or questions regarding subjects’ rights, you can contact Ro Windwalker, the University’s Compliance Coordinator, at 479-575-2208 or email irb@uark.edu.

Please be sure you have read the above information, asked any questions you have, and received answers to your satisfaction. You will be given a copy of this consent form for your records. By signing this document, you consent to participate in the study.

Signature of Participant: ______________________________________ Date: _________

Signature of Investigator: ______________________________________ Date: _________
Appendix E
Consent Form Cooperating Teachers

You have been asked to participate in a research study to evaluate the effects of evaluation reports upon preservice and cooperating teacher relationships. You were selected because of your involvement in preservice teaching field experiences for the spring of 2012 with the University of Arkansas. This study is conducted through a sample of those programs identified as being cooperating centers for preservice teachers the spring of 2012. A total of 180 people have been asked to participate in this study. The purpose of this study is to determine the effects of implementing evaluation reports upon preservice and cooperating teacher relationships. This study will look to identify the effects of an evaluation form towards teacher efficacy and preservice/cooperating teacher relationships.

If you agree to be in this study, you will be asked to submit bi-monthly evaluation reports and meet with your cooperating/preservice teacher bi-monthly. This evaluation form can be completed via web based reporting or submitted through regular mail by forms provided to the preservice teacher. This study will encompass the 11 weeks of the preservice teacher training during the spring of 2012. There are no apparent risks involved with this study. The benefits of participation are to determine the need of evaluation forms and their effects upon preservice/cooperating teacher efficacy.

All records will be kept confidential to the extent allowed by law and University policy. The researcher will code all information gained and other identifying information will be removed from the form. The linking code between participants’ name and responses will be destroyed within six months of final collection. No identifiers linking you to the study will be included in any sort of report that might be published. Research records will be stored securely and only Christopher L. Hunt will have access to the records. Your decision whether or not to participate will not affect your current or future relations with the University of Arkansas. If you decide to participate, you are free to refuse to answer any of the questions that may make you uncomfortable. You can withdraw at any time without your relations with the University, job, benefits, etc., being affected. You can contact Christopher L. Hunt (479) 575-6797 or Don Edgar (479) 575-2037 with any questions about this study.

This research study has been reviewed by the Institutional Review Board at University of Arkansas. For research-related problems or questions regarding subjects’ rights, you can contact Ro Windwalker, the University’s Compliance Coordinator, at 479-575-2208 or email irb@uark.edu.

Please be sure you have read the above information, asked any questions you have, and received answers to your satisfaction. You will be given a copy of this consent form for your records. By signing this document, you consent to participate in the study.

Signature of Participant: ______________________________________ Date: _________

Signature of Investigator: ______________________________________ Date: _________