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Supervisory practices in non-formal educational settings as perceived by agricultural education teachers: A national study

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**Supervisory practices in non-formal educational settings as perceived by agricultural
education teachers: A national study**

by

Thomas Howard Paulsen

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

Major: Agricultural Education

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Ames, Iowa

2011

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TABLE OF CONTENTS

LIST OF TABLES	vi
LIST OF FIGURES	ix
ACKNOWLEDGEMENTS	x
ABSTRACT	xii
CHAPTER I. GENERAL INTRODUCTION	1
Introduction	1
Background Information, Situation, and Statement of the Problem	4
Need for the Study	7
Purpose and Objectives	8
Significance of the Study	9
Definition of Selected Terms	9
Summary	12
CHAPTER II. REVIEW OF LITERATURE	13
Introduction	13
Instruction in Agriculture	13
Agricultural Education Defined	13
Agricultural Education Model	14
Types of Educational Delivery	15
Experiential Learning in Agricultural Education	18
Supervised Agricultural Experience	20
Leadership and Personal Development – FFA	22
Theoretical Framework	23
Conceptual Framework	26
Supervision of Instruction	28
Purpose of Supervision	28
History of Supervision	30
Supervisory Models	35
Clinical Supervision	35
Approaches to Supervision	37
Directive Control Supervision	37
Directive Informational Supervision	38
Collaborative Supervision	38
Nondirective Supervision	38
Contextual Supervision	39
Supervisory Options for Instructional Leaders	40
Other Methods of Supervision	42
Cognitive Coaching	42
Critical Friends	44

Portfolios	45
Standards for Supervision and Evaluation	46
Principles of Supervision	51
Teachers' Perceptions of Supervision	52
Research Questions	54
Summary	55
CHAPTER III. METHODS AND PROCEDURES	57
Introduction	57
Design of the Study	57
Data Source	58
Sampling Procedure	59
Instrumentation	60
Data Collection Procedures	63
Data Analysis	68
Assumptions/Limitations	70
Summary	70
CHAPTER IV. FINDINGS	72
Demographic Characteristics	72
Beliefs Regarding Instructional Supervision	76
Importance of Selected Instructional Supervision Practices in Non-formal Educational Settings	78
Perceived Experienced Frequency of Selected Instructional Supervisory Practices in Non-formal Settings	81
Analysis of Teacher Perceptions by Demographic Characteristics	85
General Beliefs Regarding Instructional Supervision	85
Gender	85
Age Range	86
Highest Level of Education	87
Experience Range	88
State Sampling Groups	88
The Importance of Selected Instructional Supervisory Practices in Non-formal Settings	88
Gender	88
Age Range	90
Highest Level of Education	91
Experience Range	92
State Sampling Groups	94
The Extent Selected Instructional Supervisory Practices Experienced in Non-formal Educational Settings	95
Gender	95
Age Range	96
Highest Level of Education	97
Experience Range	98

State Sampling Groups	104
Summary	104
CHAPTER V. DISCUSSION	106
Introduction	106
Analysis of Demographic Characteristics	107
Perceptions of Agricultural Education Teachers General Beliefs Regarding Instructional Supervision	110
Perceptions of Agricultural Education Teachers Regarding the Importance of Selected Instructional Supervisory Practices in Non-formal Educational Settings	114
Perceptions of Agricultural Education Teachers Regarding the Frequency Selected Instructional Supervisory Practices Experienced in Non-formal Educational Settings	118
Analysis of Teacher Perceptions by Demographic Characteristics	123
General Beliefs by Gender	123
Perceived Importance of Selected Instructional Supervisory Practices by Gender	125
Perceived Frequency of Selected Instructional Supervision Practices Experienced by Gender	126
General Beliefs and Perceived Importance of Supervisory Practices	128
Age Range	128
Highest Level of Education Attained	129
Experience Range	129
Perceived Frequency of Selected Instructional Supervisory Practices Experienced	131
Experience Range	131
Framework for Enhancing Instructional Supervision in Non-formal Educational Settings	133
What the Agricultural Education Teacher Can Do	139
What the Instructional Supervisor Can Do	148
Operationalizing the Framework	149
Summary	150
CHAPTER VI. SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS	153
Summary	153
Introduction	153
Purpose and Objectives	154
Research Design	154
Major Findings	155
Conclusions	157
Recommendations	158
Recommendations for Action	158

Recommendations for Further Research	159
Implications and Significance for Agricultural Education	160
APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVAL LETTER	164
APPENDIX B. APPROVED QUESTIONNAIRE	165
APPENDIX C. PILOT QUESTIONNAIRE INTRODUCTION, INVITATION, AND FOLLOW-UP EMAILS	171
APPENDIX D. QUESTIONNAIRE INTRODUCTION, INVITATION, AND FOLLOW-UP EMAILS	176
REFERENCES	181

LIST OF TABLES

Table 2.1	Three Versions of the Agricultural Education Model	15
Table 2.2	Danielson's Four Domains of the Framework for Teaching	47
Table 3.1	Convenience Samples of States with Available Online Electronic Directories Used in the Study	61
Table 3.2	Distribution of Responses of Agricultural Education Teachers by State	66
Table 3.3	Independent Samples t-test to Determine Differences in Means Between Early and Late Respondents on Survey Items	67
Table 3.4	Independent Samples t-test to Determine Differences in Means Between Early and Late Respondents on Demographic Items	68
Table 4.1	Participants in the Study by Gender	73
Table 4.2	Distribution of Age of Respondents	73
Table 4.3	Distribution of Agricultural Education Teachers' Highest Level of Education Attained	74
Table 4.4	Distribution of Agricultural Education Teachers' Years of Teaching Experience	74
Table 4.5	Distribution of Respondents by State	75
Table 4.6	Frequencies, Percentages, and Mean Ratings of Perceptions of Agricultural Education Teachers Regarding Selected Beliefs Related to Instructional Supervision	77
Table 4.7	Frequencies, Percentages, and Mean Ratings of Perceptions of Agricultural Education Teachers Regarding the Importance of Selected Instructional Supervision Behaviors in Non-Formal Educational Settings	79
Table 4.8	Frequencies, Percentages, and Mean Ratings of Perceptions of Agricultural Education Teachers Regarding the Extent to which Instructional Supervisory Practices Were Experienced in Non-Formal Educational Settings	82
Table 4.9	Independent Samples t-test for the Perceived Mean Ratings Related to General Instructional Supervisory Beliefs by Gender	86

Table 4.10	Robust Test for Equality of Means for the Perceived Mean Ratings Related to General Instructional Supervisory Beliefs by Age Range	87
Table 4.11	Independent Samples t-test Regarding the Importance of Instructional Supervisory Practices in Non-Formal Educational Settings by Gender	89
Table 4.12	Independent Samples t-test Regarding the Perceived Importance of Instructional Supervisory Practices in Non-Formal Educational Settings by Highest Level of Education	91
Table 4.13	One-Way <i>ANOVA</i> to Determine Equality of Means Regarding The Perceived Importance of Instructional Supervisory Practices in Non-Formal Educational Settings by Experience Range	92
Table 4.14	Robust Test for Equality of Means Related to the Perceived Importance of Instructional Supervisory Practices in Non-Formal Educational Settings by Experience Range	93
Table 4.15	Multiple Comparisons Between Means Related to the Perceived Importance of Instructional Supervisory Practices in Non-Formal Educational Settings by Experience Range	94
Table 4.16	Independent Samples t-test Regarding Extent Instructional Supervision Practices Experienced in Non-Formal Educational Settings by Gender	95
Table 4.17	One-Way <i>ANOVA</i> to Determine Equality of Mean Ratings Regarding Extent Instructional Supervisory Practices Experienced in Non-Formal Educational Settings by Age Range	96
Table 4.18	Multiple Comparisons Between Mean Ratings Regarding Extent Instructional Supervision Practices Experienced in Non-Formal Educational Settings by Age Range	97
Table 4.19	One-Way <i>ANOVA</i> to Determine Equality of Means Regarding Extent Instructional Supervisory Practices Experienced in Non-Formal Educational Settings by Experience Range	99
Table 4.20	Robust Test for Equality of Mean Ratings Regarding Extent Instructional Supervisory Practices Experienced in Non-Formal Educational Settings by Experience Range	99
Table 4.21	Multiple Comparisons Between Means Regarding Extent Instructional Supervisory Practices Experienced in Non-Formal Educational Settings by Experience Range	101

Table 5.1	A Framework for Enhancing Instructional Supervision in Non-Formal Educational Settings of Agricultural Education—The Teacher’s Role	136
Table 5.2	A Framework for Enhancing Instructional Supervision in Non-Formal Educational Settings of Agricultural Education—The Supervisor’s Role	138

LIST OF FIGURES

Figure 2.1	Conceptualizing Supervision of the Non-Formal Components of Agricultural Education	28
Figure 2.2	Danielson's Rubric for Domain One of the Framework for Teaching	49
Figure 5.1	A Framework for Enhancing Instructional Supervision in Non-Formal Educational Settings of Agricultural Education	137
Figure 5.2	Sample Individual Professional Development Plan Using a Non-Formal Educational Activity	146

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ABSTRACT

Student achievement in the United States is receiving increased scrutiny, placing higher levels of accountability upon the classroom teacher. Instructional supervisors responsible for the supervision of teachers have also felt added pressure to maintain student achievement at levels consistent with state and national mandates. Instructional supervisors use formalized supervision of instruction in traditional classroom settings to guide teachers in increasing student achievement. High school agricultural education utilizes a three-pronged model for program implementation that includes SAE and FFA. Agricultural education teachers should initiate activities that encourage collaborative supervision in the non-formal components of the program to help improve student achievement.

This descriptive study determined the relative importance of ten general instructional supervision beliefs, the importance of 28 selected supervisory practices, and the frequency in which the 28 selected supervisory practices were experienced by teachers in the non-formal educational settings of the agricultural education program. A disproportionate stratified random sample of 700 agricultural education teachers was drawn from state groupings stratified by FFA membership. An electronic questionnaire was used to collect the data through Survey Monkey. Findings were obtained from the responses of 234 agricultural education teachers from 17 states. Independent samples t-tests and analysis of variance were used to determine differences in perceptions based upon demographic characteristics.

The average respondent was male, 42 years of age, held a bachelor's degree and had taught nearly 15 years. Respondents believed that supervision is more art than science, should be collaborative, and used in all teachable moments for the improvement of student

learning. They also believed that their high school principals should support and provide resources for their work in non-formal educational settings.

Of the 28 selected supervision practices, agricultural education teachers perceived experiencing 14 items as occurring sometimes, 13 rarely, and one item as never experienced. No items were perceived as being experienced often or always.

It was recommended that teachers initiate key activities that influence their principal to develop collaborative instructional supervision in non-formal educational settings. Based on the findings of this study, a framework to enhance instructional supervision in the non-formal educational settings of the agricultural education program was proposed.

CHAPTER 1: GENERAL INTRODUCTION

Introduction

On January 8, 2002, President George W. Bush signed into law the most comprehensive education reform act to date, commonly known as the No Child Left Behind Act of 2001 (P.L. 107-110, 2002). The purpose of this act was to “ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education” (Sec. 1001., 20 USC 6301). This legislation mandated schools to increase accountability for teaching as well as student achievement through numerous regulations and potential sanctions for schools that did not comply. Without moving to a debate regarding the probable efficacy or futility of this legislation, it is clear that there will continue to be more pressure on educators at all levels to demonstrate competence through an ever increasing litany of accountability with documentation required from local school boards, principals, teachers, and even the students—all via student achievement scores.

One way that local schools are striving to improve student achievement is through the comprehensive school reform movement. Many models of reform exist, however, as would be expected, nearly all of them include a very strong professional development component. Teacher training through traditional one-shot, disconnected inservice programs has been replaced with new, comprehensive professional development models. These models strive to implement scientifically-based research training in teaching strategies followed by implementation and follow-up that is supported by peer coaches, critical friends groups, professional learning teams, in addition to the traditional role of highly trained principals that function as educational leaders.

Educational literature, as it relates to teaching strategies, has grown quite voluminous over the past few decades. It seems as if nearly every educator has an opinion of not only what should be taught to students, but which strategies are most appropriate for teaching the curriculum in question. Educational debate will continue to surround these topics for years to come; however, many educational groups have been able to come to consensus regarding what teachers should know and be able to do in the daily performance of their profession. One such group is the National Board for Professional Teaching Standards. This board was created because of a Carnegie task force report entitled *A Nation Prepared* (1986) which was an attempt to alleviate the concerns set off by the issuance of the landmark educational report, *A Nation at Risk: The Imperative for Educational Reform* (President's Commission on Excellence in Education, 1983).

The National Board for Professional Teaching Standards is responsible for the National Board Certification of teachers and bases this program on five core propositions found in their publication *What Teachers Should Know and be Able to Do* (2002):

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach it to their students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.

Several states have also developed a set of professional teaching standards that teachers must follow as part of their professional development plans. Many states, such as Iowa, are also utilizing the attainment of these standards as a prerequisite for teacher licensure. Currently in the state, beginning teachers must show competence in the eight Iowa

teaching standards before moving from an initial to a standard teaching license. Teachers who do not become competent by the end of the mandated two-year (with an optional third year) mentoring and induction period will be counseled away from the profession. The Iowa Department of Education (2002) adopted the following teaching standards for teacher licensure:

1. Demonstrates the ability to enhance achievement performance and support for the implementation of the school district's student achievement goals.
2. Demonstrates competence in content knowledge appropriate to the teaching position.
3. Demonstrates competence in planning and preparing for instruction.
4. Uses strategies to deliver instruction that meets the multiple learning needs of students.
5. Uses a variety of methods to monitor student learning.
6. Demonstrates competence in classroom management.
7. Engages in professional growth.
8. Fulfills professional responsibilities established by the school district.

North Carolina recently revamped its statewide teacher evaluation standards to better align with the mission that expected all students to graduate with the skills required for transition to postsecondary education and for employment in a global society (Williams, McKinney, Garland, & Goodwin, 2010). The North Carolina Professional Teaching Standards (North Carolina Teacher Evaluation Process, 2008) are as follows:

1. Teachers demonstrate leadership in their classrooms, schools, and profession.
2. Teachers establish a respectful environment for a diverse population of students

3. Teachers know the content they teach.
4. Teachers facilitate learning for their students
5. Teachers reflect on their practice.

As professional teaching standards and evaluation procedures become more integrated across the fifty states, additional time and effort must be concentrated on the supervision of teachers by highly qualified principals and assistant principals. These educational leaders will need to be trained in numerous observational and data collection methods that will assist teachers in fine tuning their practice so as to help increase student achievement. But where this practice takes place for some teachers is not well understood by all educational supervisors. Is student achievement impacted most by the classroom setting alone? Agricultural education instructors who utilize many non-formal teaching and learning settings might disagree. Herein lies the concern of educators who implement all or part of their instruction of students outside of the traditional classroom setting. How can their professional practice in non-formal educational settings, in addition to the formal classroom settings be utilized to meet these ambitious new requirements of comprehensive school reform and student achievement?

Background Information, Situation and Statement of the Problem

According to Danielson and McGreal (2000), there are six primary insufficiencies with the current systems of teacher evaluation in the schools today. These include: outdated evaluative criteria, few shared values and assumptions about good teaching, a lack of precision in evaluating performance, hierarchical communication, a lack of differentiation between teachers, and limited administrator experience. According to Iwanicki (2001), far too many schools are “paralyzed by what teacher evaluation used to be that they resist

promising new alternatives” (p. 59). There has been an impetus in the past few years to implement many new methods of supervision in schools that are consistent with contemporary literature. However, many educational supervisors have not been trained in these newer supervisory techniques.

Teacher supervision must also be looked upon as part of the entire educational reform effort. As one looks at the professional standards for teachers, it is evident that the focus on supervision needs to move toward collecting data to help teachers assess student learning in all educational settings. Iwanicki (2001) professed, “If we start with school improvement, support our school improvement efforts with quality staff development, and reinforce staff development through teacher evaluation, then meaningful improvement in teaching and student learning results” (p. 59). Nonetheless, most of the supervisors’ data collection instruments discussed in the contemporary literature are designed primarily with the traditional classroom setting in mind, and do not get at the heart of helping supervisors truly help teachers in all teaching environments—especially those outside of the traditional, formal classroom setting.

Agricultural education programs utilize a whole person approach to education (National Council for Agricultural Education, 2000). These programs include a classroom and laboratory component where traditional instruction takes place utilizing a wide variety of teaching strategies. In addition, these programs allow students the opportunity to participate in an experiential learning component referred to as Supervised Agricultural Experience (SAE). In this program component, students participate in individual experiential learning endeavors that are an outgrowth of the “...actual, planned applications of the concepts, principles, and skills learned in formal Agricultural Education courses in high school” (Iowa

Governor's Council, 2003). These programs are developed under the supervision of agricultural education instructors, parents or guardians, employers or supervisors, and other interested adults that assist students in developing skills that could lead to a career in one of the seven career areas of agriculture.

Another factor that makes an agricultural education program unique from its traditional classroom cousins is its inclusion of a co-curricular, career and technical student organization—the National FFA Organization. This organization provides opportunities for student learning and achievement outside the traditional classroom setting through planned activities that concentrate on leadership development and personal growth. The mission of the National FFA Organization states, “FFA is dedicated to making a positive difference in the lives of young people by developing their potential for premier leadership, personal growth and career success through agricultural education” (National FFA Organization, 2009).

This three-pronged approach to learning with classroom/laboratory, leadership development and a personalized experiential learning component subscribes to a constructivist philosophy (Savery & Duffy, 1996) that includes experiential and service learning opportunities in conjunction with instruction in the highly scientific and business-oriented curriculum known as today's agriculture education. Although this model dates back to the implementation of vocational education in secondary schools with the enactment of the Smith-Hughes Act of 1917, it still serves as a model of educational instruction for today's schools in utilizing a whole person approach to education (Moore, 1988). Goodlad (2003) concurs with this notion when he declared, “...we must do more than teach students only about the political structures of democracy. We must teach the students the ideals of

democracy and social equality and give our young people opportunities to practice those ideals in their daily lives, both in and out of school” (p. 21).

With three primary components coming together to complete an agricultural education program, it is critical that an administrator responsible for the supervision of the agricultural education teacher and program has a basic understanding of this comprehensive model. But it is even more significant that the administrator use supervisory practices that will be beneficial to assisting the teacher in improving student achievement not only in the classroom, but in the non-formal learning components as well. McGreal, in an interview with Brandt (1996) contended, “Teachers are being urged to move from explicit instruction models to more constructivist teaching—with students actively involved—and more complex outcomes. If that’s what teaching is supposed to be, the old models of classroom observation...just don’t fit very well” (p. 30).

In order to improve upon the old models of supervision, it is important to find out the state of supervision of agricultural education teachers, therefore several questions must be answered. How well do agriculture teachers understand selected principles of supervision? How important are these practices? To what extend are they being used?

Need for the Study

This study was developed to assist those responsible for supervising agricultural educators in both the formal and non-formal student learning settings common to these programs. Under the impetus put forth by the No Child Left Behind Act of 2001, teachers from all curriculum areas were expected to implement scientifically research-based teaching strategies that included experiential learning environments within their classrooms; and while at the same time were facing amplified accountability for increased student achievement.

Educational supervisors must be able to provide meaningful feedback in the form of observational data that aids teachers in improving their practice in order to increase student achievement in these non-traditional educational environments. Because the three-component agricultural education model contains important components beyond the classroom setting, it is critical that supervision take place in those areas as well. Since no known studies had been identified that consider agriculture teachers' perceptions of the instructional supervisory practices they receive from their supervisors in the non-formal educational settings of agricultural education, this study provided baseline data to be used in determining supervisory approaches that best fit the needs of agricultural education teachers.

Purpose and Objectives of the Study

The purpose of this study was to determine agriculture teachers' perceptions regarding selected instructional supervisory practices perceived to be used in supervising the performance of agriculture teachers in non-formal educational settings. A secondary purpose was to develop an instructional supervisory framework for supervision of teacher performance in non-formal educational settings.

The specific objectives of this dissertation were to:

1. Identify perceived general beliefs regarding supervision of instruction.
2. Identify the perceived importance of selected supervisory practices.
3. Identify the extent to which selected practices are in use in non-formal educational settings.
4. Identify selected demographic data of participants in this study.
5. Compare perceptions of agriculture teachers about selected supervisory practices used in non-formal educational settings based on demographic data.

Significance of the Study

This study should be of interest to a wide range of audiences. Specifically, an understanding of the perceived supervisory practices used in non-formal learning environments in agricultural education will be useful for supervisors of student teachers, agricultural education teachers, and primarily those educational leaders who supervise them. In addition, results of this study will impact the research base of contemporary literature in the area of educational administration and the supervision of instruction in non-formal learning environments across the traditional secondary school curriculum. Finally, this study will help to solidify the importance of the non-formal learning components of agricultural education as a model for teachers in other curricular areas to utilize as they continue to implement scientifically research-based strategies into their classrooms designed to increase student achievement.

Definition of Selected Terms

For the purpose of this study, the following terms have been defined:

Clinical supervision: "...the aspect of supervision which draws upon data from first-hand observation of actual teaching, or other professional events, and involves face-to-face and other associated interactions between the observer(s) and person(s) observed in the course of analyzing the observed professional behaviors and activities and seeking to define and/or develop next steps toward improved performance (Goldhammer, Anderson, & Krajewski, 1993, p. 34).

Evaluation: Nolan (1997) defines evaluation as "an organizational function designed to make comprehensive judgments concerning teacher performance and competence for the purpose of personnel decisions such as tenure and continuing employment" (p. 100).

FFA: Formerly known as the "Future Farmers of America", a national career and technical student organization comprised of students enrolled in high school agricultural education courses for the purpose of leadership development, personal growth and career success (National FFA Organization, 2009).

Formal education: The hierarchically structured and graded educational system typically related to the traditional classroom or laboratory implemented within the school building during normal school hours (Kleis, Lang, Mietus, & Tiapula, 1973).

Instructional Supervision: "...the process of engaging teachers in instructional dialogue for the purpose of improving teaching and increasing student achievement" (Sullivan & Glanz, 2000, p. 24).

Non-formal education: "Any intentional and systematic educational enterprise (usually outside of traditional schooling) in which content, media, time units, admission criteria, staff, facilities and other system components are selected and/or adapted for particular students, populations, or situations in order to maximize attainment of the learning mission and minimize maintenance constraints of the system" (Kleis et al., 1973, p. 6).

Observational instrument: A tool used by an observer to collect qualitative or quantitative data within an educational environment for the purpose of engaging teachers in reflective thinking and dialogue with peers or supervisors in order to improve instruction and student achievement.

Perception: A process by which sensations are interpreted and organized to help produce meaning for the individual (Lindsay & Norman, 1977).

Professional Growth: Professional improvement by a teacher, usually based upon individualized goals set and reviewed by an educational supervisor, used in the formative assessment process.

Professional teaching standards: A set of principles for professional practice that are used to assist in measuring a teacher's competence.

Reflection: A process of self-examination and assessment regarding a teaching experience for the purpose of improving instruction and student achievement.

Social Perception: The perception of the characteristics, attitudes and behaviors of one's work associates or social groups.

Supervised Agricultural Experience (SAE):

“The actual planned application of concepts and principles learned in agricultural education. Students are supervised by agricultural teachers in cooperation with parents/guardians, employers, and other adults who assist them in the development and achievement of their educational goals. The purpose is to help students develop skills and abilities leading toward a career” (Barrick et al., 1992, p. 1).

Supervisor: One who provides a supervisory function over another, usually a high school principal with the authority to supervise and evaluate a teacher.

Supervisory practices: A specific series of activities performed by a supervisor during the act of instructional supervision.

Whole Person Education: A “concept of education, including leadership, personal growth and interpersonal development” (National Council for Agricultural Education, 2000, p. 7).

Summary

Heavier federal and state regulations have placed agricultural education teachers and the administrators that supervise them under additional scrutiny with higher expectations to be more accountable for student achievement. Teaching standards that focus on what teachers should know and do have framed much of the classroom-based supervisory practice of educational administrators. Agricultural education teachers provide educational opportunities and programming beyond the formal classroom setting. These non-formal educational components of experiential learning (Supervised Agricultural Experience) and leadership and personal development (FFA) help agricultural education teachers provide rich contexts to better educate the whole student.

This study was developed to identify the beliefs agricultural education teachers have regarding instructional supervision in general; the importance of selected instructional supervisory practices that they are subject to; and the frequency in which they receive it in the non-formal educational settings of agricultural education. The baseline data drawn from these perceptions could assist agricultural educators and their supervisors in improving instruction in the non-formal components of agricultural education.

CHAPTER 2: REVIEW OF THE LITERATURE

Introduction

Student achievement in schools in the United States is receiving an ever greater emphasis, placing more accountability on the classroom teacher. Administrators responsible for the supervision of classroom teachers have also felt pressures to maintain student achievement at levels consistent with state and national mandates. One of the primary strategies used by administrators to guide teachers in increasing student achievement is through supervision of instruction in traditional classroom settings. Agricultural education teachers who teach in the formal classroom as well as numerous non-formal educational settings are supervised by these same administrators. It is important for these administrators to have a working understanding of how agricultural education programs are designed and how agricultural education teachers work within that design.

Instruction in Agricultural Education


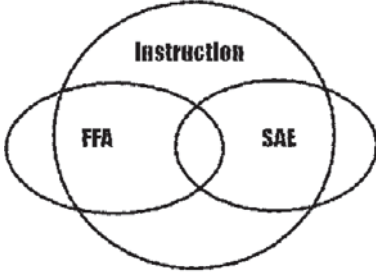
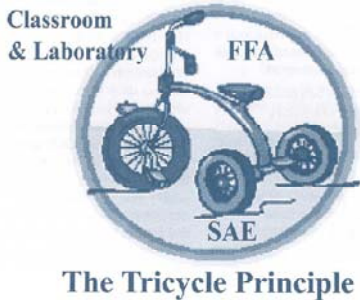
Agricultural Education Defined

Agricultural education has been defined many ways. Phipps, Osborne, Dyer, and Ball (2008) delineated agricultural education as systematic; occurring at the elementary through adult levels, with a purpose of preparing for agricultural occupations, developing entrepreneurship and creating agricultural literacy. Barrick (1988) defined it as a discipline when he professed it as “the scientific study of the principles and methods of teaching and learning as they pertain to agriculture” (p. 5). Talbert, Vaughn, Croom, and Lee (2007) espoused it also as a program, containing many components beyond the traditional walls of the classroom.

Agricultural Education Model

The agricultural education program implementation model is traditionally represented by a three-circle Venn diagram. Three program components of classroom and laboratory instruction, leadership and personal development through the FFA and the experiential learning component of Supervised Agricultural Experience Programs provide a programmatic structure for teaching and learning within agricultural education programs. The three-circle Venn diagram first appeared in the FFA Advisors’ Handbook in 1975 (Gratz and Moore, 2009), depicting the relationship between the three program components. The Agricultural Education Model varies depending upon the source. The most common variations are summarized in Table 2.1 below.

Table 2.1
Three Versions of the Agricultural Education Model

National FFA (2009)	Baker and Talbert (2009)	Retallick (2003)
		

The National FFA (2009) model shows the three components of agricultural education in the traditional configuration. The Baker and Talbert (2009) model shows a similar configuration, except with an effort to highlight the importance of the instructional component as the focus of the program. In the tricycle model (Retallick, 2003), the three

components are shown with the classroom and laboratory instruction providing the direction, being balanced by the important components of FFA and SAE.

National program standards have been developed by the National Council for Agricultural Education (2009) as benchmarks for activities that relate directly to the three program model of agricultural education in the following areas: curriculum and program design, instruction, facilities and equipment, assessment, experiential learning and leadership development. Additional national standards also address what Talbert et al. (2007) consider the program component of agricultural education. These areas include school and community partnerships, marketing, certified agriculture teachers and their professional growth, as well as program planning and evaluation. Advisory committees are commonly tapped to assist in providing direction and improvement goals for local agricultural education departments utilizing the National Program Standards as a guide for local program improvement. Since these standards consider numerous constructs beyond the traditional classroom and laboratory instructional setting, it is evident that to be successful, agricultural education teachers must attend to various program components including formal classroom and non-formal educational components of the comprehensive program.

Types of Educational Delivery

The Merriam-Webster Online dictionary defines education as “the action or process of educating or being educated”. Educational actions and processes can be delivered through formal, non-formal or informal means (Coombs, Prosser, & Ahmed, 1973; Etling, 1993; Kleis et al., 1973). Formal education is defined by Coombs, Prosser, and Ahmed (1973) as “the hierarchically structured, chronologically graded educational system running from primary school through the university and including in addition to general academic studies,

a variety of specialized programs and institutions for full-time technical and professional training” (p. 11). Alternatively, non-formal education is defined by Kleis et al. (1973) in their non-formal education discussion papers as:

any intentional and systematic educational enterprise (usually outside of traditional schooling) in which content, media, time units, admission criteria, staff, facilities and other system components are selected and/or adapted for particular students, populations, or situations in order to maximize attainment of the learning mission and minimize maintenance constraints of the system (p. 6).

Etling (1993) professed that non-formal education is learner-centered, provides options and choices for the learner, and focuses on practical skills while being more flexible than formal educational activities.

A third type of educational delivery is termed informal education. Incidental learning, unplanned or unorganized activities explained to a participant by an elder or peer constitute informal education (Kleis et al., 1973). Although this type of learning may take place in numerous settings in agricultural education, it is not a primary area of concern in this study.

Based on their definitions, formal and non-formal educational delivery systems infuse themselves into the agricultural education models presented above (Etling, 1993). The classroom and laboratory instructional components of the agricultural education model align with formal educational delivery—teachers deliver a set curriculum, within a chronologically graded system, recognized by educational leaders, supervisors and the community-at-large. The leadership and personal development component—the National FFA Organization, even with numerous leadership programs with a set curriculum—is normally delivered through

non-formal delivery. FFA activities are intentional and systematic, but normally outside of the formal setting of school, providing options and choices and tend to be more learner-centered. Supervised Agricultural Experience Programs, the experiential learning component of the agricultural education model also fits in the non-formal category. Although learning activities are formally planned and supervised by the agricultural education instructor, parents, employers or other interested adults (Phipps et al., 2008); the learning is student-centered and based upon student choices and options (Talbert et al., 2007). From time to time, new learning may also occur when something happens that was not planned. When followed up with a peer or adult, the learning fits into the informal educational mode.

Agricultural education, with its unique three component model, allows teachers greater opportunity to assist students in their learning through a whole student approach (Hughes & Barrick, 1993) that can provide academic rigor, through a relevant contextual approach while developing relationships that enhance student learning. Through this three-component model, agricultural education teachers are given an authentic structure to utilize formal as well as non-formal methods of instruction.

Many teaching methodologies and approaches fit quite well with this whole student approach. When reviewing textbooks on agricultural education, the problem based learning method of instruction receives great attention (Talbert et al., 2007; Phipps et al., 2008). This method is based strongly in Dewey's constructivist approach to learning where students search for meaning by connecting what they learn to what they have previously experienced. This method also subscribes to the various iterations of experiential learning theory espoused by Kolb (1984) and others. In this methodology, teachers present a problem area for students to research, develop and solve utilizing the real world of agriculture as its context. The

problem is usually ill-structured (Phipps et. al, 2008) that is, they do not have a clear answer and there are more than one way to solve the problem. Problem based learning doesn't just happen in traditional classroom settings.

The problem based learning model has roots in Stimson's early Project Method (Moore, 1988) and suffuses itself quite effectively throughout this model of agricultural education. Opportunities exist to utilize problem based learning in formal educative activities within the traditional classroom and laboratory settings; throughout non-formal, yet structured activities in experiential learning activities within SAE; as well as through the various activities and events found in leadership and personal development component of the FFA (Etling, 1993). Burriss (2008) professed that the problem based learning approach can help students to develop: 1) a broad knowledge base, 2) effective problem-solving skills, 3) lifelong learning skills, 4) collaboration skills, and 5) intrinsic motivation for learning.

Experiential Learning in Agricultural Education

Experiential learning has traditionally been traced to John Dewey and his philosophy of experiential and citizenship education (Easterling & Rudell, 1997). In his book *Experience and Education*, Dewey (1938) stated that the principles of interaction and continuity map out the components of a learning experience that has educational value. These factors that affect the student experience include those that are internal to the student as well as those that are objective parts of the environment. Dewey (1938) also contends, "every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after" (p. 35).

Experiences must have value to students. According to Dewey (1938), classroom problems and activities are not very meaningful to students; therefore to create meaning,

students should be involved directly with what they are studying. The educational value of an experience is derived from how the experience contributes to the students' development as well as the nature of the students' interaction with the environment (Carver, 1997).

Environmental interactions and experiences are not always positive. Bruening, Lopez, McCormick, and Dominguez (2002) contend that when students have negative experiences, it can have a detrimental effect on future encouraging educational experiences. Therefore, when developing experiential learning activities for students, it is critical that the teacher develop "...meaningful, high-quality, student-centered experiences that connect with students prior experiences" (Bruening et al., p. 69). To be certain students have these positive experiences, Kolb (1984) delineated an experiential learning model that included four primary components required for a quality experiential learning experience: concrete experience, observation and reflection, the formation of abstract concepts, and testing in new circumstances.

Flynn, Mesibov, Vermette, and Smith (2004) promote a Two-Step Model in applying a constructivist approach to motivating middle and high school students. The model begins with an exploratory phase and is followed by a discovery phase. The exploratory phase contains the following six criteria: create an environment conducive to learning, access and assess prior knowledge of the learner, help the learner become aware of his perceptions of the lesson concepts, expose the learner to new information that conflicts with previous perceptions, motivate the learner to want to discover more, and begin to introduce the learner to the content to be used in the discovery phase. In the discovery phase, the student is motivated to complete an authentic task that requires student engagement, which leads to

intrinsic student motivation, which causes learner mental activity, to resolve learner confusion.

The Kolb (1984) or Flynn et al. (2004) models describe methods which can be used to develop student centered experiential learning activities. Either of these models is appropriate in developing the primary non-formal experiential learning components of agricultural education—SAE and FFA.

Supervised Agricultural Experience

The primary experiential learning component of an agricultural education program is Supervised Agricultural Experience (SAE). Nine years prior to the passing of the National Vocational Act in 1917, an agriculture teacher named Rufus Stimson had already begun encouraging students to bring forth personal experiences from the home farm into the classroom as a basis for classroom-based instruction (Dyer & Osborne, 1995). From its early beginnings, the concept of experiential learning has been embedded deeply into the agricultural education programs that continue today. This component fits into the overall agricultural education program and accentuates applied learning, personal development, and work-relevant instruction (Hughes & Barrick, 1993). SAE is defined by the Iowa Governor's Council on Agricultural Education (2003) as

“...the actual, planned applications of concepts, principles, and skills learned in formal Agricultural Education courses in high school. Through guidance by teachers of agriculture, parents/guardians, employers/supervisors and other adults, students develop specific skills and abilities that could lead to careers in the six career areas in agriculture (Food Products & Processing Systems, Animal Systems, Plant Systems,

Technical & Mechanical Systems, Business Systems, and Natural Resource Systems)
(p. 5).

Phipps et al. (2008) defined Supervised Agricultural Experience as

“...all the practical agricultural activities of educational value conducted by students outside of class and laboratory instruction or on school-released time for which systematic instruction and supervision are provided by their teachers, parents, employers, or others” (p. 313).

Much research has been carried out regarding the nature of SAE. However, Dyer and Osborne (1995) indicate that research related to the challenges of SAE program participation have been primarily descriptive and survey in nature while no experimental research had been completed that indicated any educational benefit to students. Cheek, Arrington, Carter, and Randell (1994) agreed that relatively few studies have been conducted to determine a relationship between SAE and student achievement and their results are divergent. One study on SAE scope and achievement in agricultural education classes showed a positive significant relationship (Noxel & Cheek, 1988) while another did not find such a relationship (Tylke & Arrington, 1988).

Even though the current experimental research base does not fully support a positive relationship between SAE and student achievement, its recognized existence by educational leaders, teachers and students necessitate an understanding by administrators responsible for the supervision and evaluation of these embedded programs. No studies have been identified that consider the perceptions of agricultural education teachers regarding the supervisory practices of high school principals in relation to supervision and evaluation of agricultural

education instructors in the experiential learning components of agricultural education, specifically SAE.

Leadership and Personal Development - FFA

The leadership and personal development component of the agricultural education model is the FFA. FFA is considered a co-curricular, Career and Technical Student Organization (CTSO) (Alfeld et al., 2007). Formerly known as the Future Farmers of America, the main purpose of this non-formal, experiential learning component of agricultural education is found in the organization's mission: "FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education" (National FFA Organization, 2009, p. 6).

Much anecdotal evidence has been presented as the value of student participation in CTSO's—especially FFA. *The Agricultural Education Magazine* published an article entitled "Through Rose Colored Glasses" (1999). The anonymous authors purported, "[w]e assert that the FFA [Future Farmers of America] develops premier leadership, personal growth, and career success. But does it really? Just because we say it does, doesn't necessarily mean it really does" (p. 27). The authors conclude "there is virtually no solid evidence to support the contention that FFA develops leadership" (p. 27). In a comprehensive study on the effects of student participation in CTSO's, a research team from the National Research Center for Career and Technical Education report (Alfeld et al., 2006) suggested that CTSO participation did not necessarily produce an increase in leadership ability because students in leadership organizations already had high levels of ability. However, they did determine that "the more the students participated in CTSO activities, the higher their academic motivation,

academic engagement, grades, career self-efficacy, college aspirations, and employability skills” (p. 27). Since involvement in FFA certainly has an effect upon variables that may be correlated to increased academic achievement, it is critical that supervisors of high school agricultural education teachers (and programs) have a deep understanding of how they operate and their potential impact on student achievement. No studies have been identified that consider the perceptions of agricultural education teachers regarding the instructional supervisory practices of high school principals in relation to supervision and evaluation of agricultural education instructors in the leadership and personal development component of agricultural education, specifically FFA.

Theoretical Framework

“All of our knowledge has its origins in our perceptions” (Leonardo da Vinci in Gordon, 2005, p. 137). The theoretical framework underlying this study originated from Ferguson and Bargh’s (2004) work regarding how social perceptions can automatically influence behavior. According to Ferguson and Bargh (2004), social knowledge, activated through perception, can shape and guide complex human behaviors automatically without one’s knowledge of how or why these behaviors are taking place. Automaticity is a term commonly used to describe this phenomenon (Bargh & Williams, 2006; Bargh, 1997). This theory is based upon the theory of planned behavior as espoused by Ajzen (1991). Ajzen purported that an individual’s intentions to exhibit a given behavior is in direct relation to three variables: 1) attitudes of the individual toward the behavior, 2) subjective norms towards a behavior, and 3) perceived behavioral control of the individual.

Whitehead (1929) described perception as a causal relationship between an individual and his/her own external world at a given moment. Price (1932) contended that perceptions

were the result of an experience given to the senses. Perception is also integral to the human existence. Agar (1943) maintained that a living organism is essentially something that perceives. Other researchers have contended that perception is more than a result or reaction, but that of a process (Coats, 1998; Van den Ban & Hawkins, 1996). Lindsay and Norman (1977) claimed that perception is a process by which sensations are interpreted and organized to help produce meaning for the individual. Because of the nature of a process-based definition, perceptions are ever-changing, providing for continuous change in the perceiver (Nessier, 1976).

Hockenbury and Hockenbury (2010) described the development of perception as a method of 1) top-down or conceptually driven processing; occurring when an individual draws upon his/her knowledge, experiences, and expectations regarding people or objects within a given contextual situation; or 2) bottom-up or data-driven processing; used when presented with an ambiguous situation where the stimuli must be identified and constructed piece by piece.

The development of perception can be affected in other ways. Dijksterhuis and Bargh (2001) and Prinz (1997) wrote that the connection between perception and behavior derives from the natural tendency for humans to act as others act. This is due to the way the mental representations made by the brain for both perception and behavior overlap. According to Bargh (1990), goals and behavior responses correspond to mental representations similar to attitudes and perceptual interpretations. It is this connection that can cause the trigger of automaticity between a developed perception and a particular behavior.

Behaviors are not just triggered through imitation. Bem (1972) proposed the self-perception theory to consider additional ways in which individuals behave. This theory

states, “Individuals come to ‘know’ their own attitudes, emotions, and other internal states partially by inferring to them from observations of their own overt behavior and/or the circumstances in which this behavior occurs” (p. 2). Bem (1972) continued to espouse that the theory suggests a partial identity between self- and interpersonal perception. When an individual relies upon weak, ambiguous or uninterpretable goals, he/she is essentially placed in the position of an outside observer that must rely upon external cues to determine his/her internal state. Fazio (1987) shared that self-perception processes are limited to individuals who lack a strong initial attitude. Individuals with a strong attitudinal position on a given situation are able to enact a behavior without the need for becoming an outside observer. This means that through self-perception theory, the behavior practices of educational professionals may be influenced by a strong initial attitude regarding selected principles of supervision.

Bargh and Williams (2006) believed that social representations become automatically activated to invoke group stereotypes when corresponding features are present in the environment. An individual’s perception of these groups or individuals within the group can automatically activate a given behavior. The nonconscious activation of social representation is done in one of two ways; either preconsciously, through direct environmental activation; or postconsciously, through the conscious use of an unrelated context such as used in priming. Through priming, researchers attempt to passively activate a given construct through having a participant think about it in an earlier, seemingly unrelated component of the study (Bargh & Williams, 2006). Priming activates previous social perceptions and can therefore directly impact behavior. This means educational professionals may enact behaviors regarding supervision based upon group stereotypes of the educational professionals in their environment or through unintended priming of the participants.

Nonconscious goal pursuit (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Troetschel, 2001) is a mechanism whereby the social environment can influence social behavior through the mental representation of previously set goals. When an individual repeatedly encounters a situation where a previous goal has been set and implemented, the automatic behavior is to internalize the operation of the goal and behave accordingly. Oettingan, Grant, Smith, Skinner, and Gollwitzer (2006) claimed there is evidence that nonconsciously activated goals operate on the same basic mechanisms as consciously activated ones and are equally successful in guiding individuals toward goal attainment. Research by Bargh et al. (2001) suggested that subliminal priming of a cooperation goal produced the same increase in cooperative behaviors as with those primed with explicit instructions to cooperate. Based on Ferguson and Bargh's theory (2004) one might reasonably infer that agricultural education teachers with favorable perceptions regarding the instructional supervision process would demonstrate behaviors contrary to those with unfavorable perceptions. Those with a positive perception should therefore be more interested in participating in activities to enhance the instructional supervisory process for the overall improvement of teaching and learning within the agricultural education program.

Conceptual Framework

Agricultural education teachers' perceptions of supervision may impact the manner in which they approach their instructional practice. Instructional supervision has been defined by Sullivan and Glanz (2000) as, "...the process of engaging teachers in instructional dialogue for the purpose of improving teaching and increasing student achievement" (p. 24). This process takes place through the implementation of numerous models, with various individuals, and in numerous settings. The dialogue in which Sullivan and Glanz (2000) refer

takes place between a teacher and his/her official supervisor—usually the high school principal or designee; prior and subsequent to an act of observing the teacher in some form of teaching performance. Observation tends to take place within the confines of the formal traditional classroom or laboratory setting. Supervisors implement specific supervisory practices while supervising agriculture teachers in these traditional, formal classroom settings.

Supervision of teachers by supervisors, namely high school principals, has been historically rooted in evaluation; therefore it been perceived by many as a top-down, mandated requirement. Agricultural educators are supervised much like other teaching professionals in formal educational settings such as the classroom or laboratory. However, agriculture education programs at the secondary level also contain non-formal components of instruction—experiential learning opportunities—namely Supervised Agricultural Experience and leadership/personal development instruction—namely the FFA Organization. Instructional supervision then, for the purpose of this study was addressed in the non-formal educational settings related to agricultural education. Utilizing the traditional three-component agricultural education model as its core, the following conceptual model was developed.

Figure 2.1 identifies the manner in which this study considered supervision's use and impact with the non-formal educational components of agricultural education. Supervision is generally seen as a top-down, administrator-centered approach to formal instructional improvement. This model demonstrates the importance of including the non-formal components of the agricultural education program in the overall supervision process.

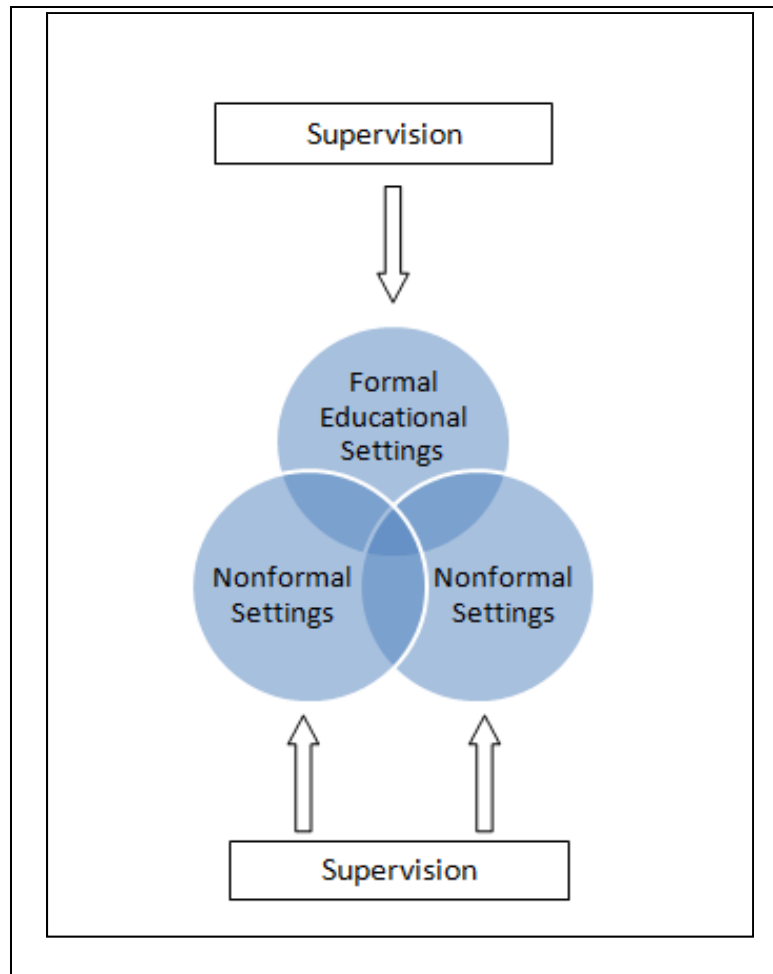


Figure 2.1. Conceptualizing supervision of the non-formal components of agricultural education

Supervision of Instruction

Purpose of Supervision

Theoretical misinterpretations and confusion regarding supervision and evaluation are common with educational professionals and *hoi polloi* alike. Supervision is defined by Nolan (1997) as “an organizational function concerned with promoting teacher growth and leading to improvement in teaching performance and greater student learning” (p. 100).

Alternatively, Nolan (1997) defines evaluation as “an organizational function designed to make comprehensive judgments concerning teacher performance and competence for the

purpose of personnel decisions such as tenure and continuing employment” (p. 100). Haefele (1993) identifies seven purposes of a teacher evaluation system:

1) screen out unqualified persons from certification and selection processes; 2) provide constructive feedback to individual educators; 3) recognize and reinforce outstanding service; 4) provide direction for staff development practices; 5) provide evidence that will withstand professional and judicial scrutiny; 6) aid institutions in terminating incompetent or unproductive personnel; and 7) unify teachers and administrators in their collective efforts to educate students. (p. 21-31)

The supervision of teachers generally falls into one of two categories—quality assurance or professional growth (Danielson & McGreal, 2000). The former is a means to assure the public, legislators and policymakers that teachers in a given school district meet the expectations of a certain level of quality. The latter is the expectation of the teachers that they will be treated professionally and given the opportunity to participate in professional development and improve their skills as a teacher. Fredrich (1984) further delineated these concepts when he professed, “[s]upervision is a formative, supportive approach to improving teaching competence: Evaluation is a summative process that should culminate a period of supervision” (p. 12). Glickman, Gordon, and Ross-Gordon (2004) expounded that summative evaluation is used primarily for “an administrative function intended to meet the organizational need for teacher accountability” (p. 310). Alternatively, formative evaluation as defined by Glickman et al. (2004) is “a supervisory function intended to assist and support teachers in professional growth and the improvement of teaching” (p. 311). These two purposes, historically, have seemed to be in conflict with each other (Cogan, 1973; Danielson & McGreal, 2000; Glanz, 1995; Nolan, 1997). However, Petrie (1982) averred that

supervision and evaluation are not incompatible. Furthermore, Danielson and McGreal (2000) contended that teacher evaluation can be redesigned to include both formative supervision and summative evaluation in one comprehensive system.

History of Supervision

The history of supervision is tightly bound to the theoretical beliefs regarding education over time. Olivia and Pawlas (2001) contend that supervisory practices are based on the “political, social, religious and industrial forces existent at the time” (p. 4). Since the theory of teaching and learning is ever changing, supervision will continue to morph with its perceived needs.

Prior to the organization of schools there was no need for outside instructional supervision in early colonial America. With an increasing population, the early colonists determined a need for formalized instruction (Neagley & Evans, 1980). In 1647, the Commonwealth of Massachusetts passed the “Old Deluder Law” which required communities with fifty or more families to provide education in writing and reading and with 100 or more families to build a grammar school. The primary purpose was to provide residents of the Commonwealth an educated public to read the Bible and ward off the “Old Deluder Satan” (West, 1939). With the formation of publically funded schools, teachers were hired and therefore the need for supervision was born. Initially, supervisors in colonial Massachusetts were clergy involved in inspection of the teachers’ ability to teach students to read and write.

As early as 1875, William Herald Payne was writing of the inspection in schools as a critical responsibility of the school superintendent. Teachers were to demonstrate “[a]bility to keep order, power of holding attention, knowledge of the subject, [and] skill in imparting

instruction” (West, 1939, pp. 71-72). In 1888, renowned superintendent James Greenwood described supervision as “inspecting the work” (West, 1939, p. 520).

In 1911, Frederick Taylor wrote *The Principles of Scientific Management*. In this seminal paper on management, Taylor professed that tasks should be scientifically identified and that workers should be trained and supervised to develop the utmost competency in implementing a task through one “best way” (Taylor, 1911, p. 126). Franklin Bobbit, an educational curriculum leader during the social efficiency movement, took Taylor’s principles of scientific management and applied them to educational settings—a move that forced supervisors to use those methods in evaluating teachers (Sergiovanni, 1979).

John Dewey (1916) wrote about the hazards of social efficiency in *Democracy and Education* when he downplayed the doctrine where, “...the business of education is to supply precisely what nature fails to secure; namely, habituation of an individual to social control; subordination of natural powers to social rules” (p. 61). Supervision at that time inspected teachers harshly and critically to provide efficiency in the educational setting.

Many practitioners and scholars of the time began to speak out against inspection-driven supervision. Sallie Hill (1918), in her paper presented to the National Education Association illuminated the defects in the process of supervision. The harsh criticism by supervisors with rating power to dismiss, left many teachers frustrated or humiliated. Hill felt inspection should be replaced with professional growth and encouragement. Hill noted “[u]nwise, unfeeling criticism from supervisors has contributed more to the hysterical broken-down condition of the teaching body than any other one cause (p. 584). Hosis (1920) bemoaned solely utilizing the scientific management principles of supervision and called for a democratization of supervision. He believed that supervisors should lead teachers

cooperatively and constructively while recognizing the value of the human element in teaching and learning. Newlon (1923) also purported that supervision needed to address more than the inspection of teaching methods. “I conceive of the supervisor as a leader with the responsibility of organizing a teaching force for the study of its professional problems” (p. 548). Hart (1929) began to ask questions regarding supervision from the standpoint of the teacher being supervised. He felt that supervision should assist the beginning teacher in professional development and give the type of assistance required to make the average teacher good and the good teacher superior.

In the 1930s, the focus of educational supervision moved from scientific management-based, social efficiency driven process to include more of a human relations focus. Supervision became influenced by personality theories of psychology and the qualities of good teachers (Ellett & Teddlie, 2003). Barr (1931) expanded upon these theories in his work on scientific supervision. He believed that supervision should include an analysis of teaching through the use of scientific data collection. Utilizing this type of collection would lead to discovering approved teaching practices which could lead to standards for supervision (Sullivan & Glanz, 2000).

Building upon the popular behaviorism movement, supervision in the 1950s began to focus on the relationships between teacher behaviors and student outcomes (Ellett & Teddlie, 2003). Martin and Howell (1983) espoused that beginning teachers working in a supervision-by-objective system had a high perception of individual effectiveness. As outcome-based supervision became more common, teacher leadership evolved setting the stage for a more collaborative approach to supervision. Sullivan and Glanz (2000) identified five ways supervision was to provide this collaborative leadership: “developing mutually acceptable

goals, extending cooperative and democratic methods of supervision, improving classroom instruction, promoting research into educational problems , and promoting professional leadership” (p. 18).

Glickman (2002) espoused that direct assistance given to teachers is critical to the success of schools. The collaborative leadership movement’s approach to supervision meshed well with the work of Goldhammer (1969) and Cogan (1973) with their concept of clinical supervision. Clinical supervision is a well-known structure for supervision (Cogan, 1973; Glickman, 2002; Goldhammer, 1969). Goldhammer et al. (1993) identified it as a concept, defining nine specific characteristics:

1. It is a technology for improving instruction.
2. It is a deliberate intervention into the instruction [*sic*] process.
3. It is goal-oriented, combining school needs with the personal growth needs of those who work within the school.
4. It assumes a working relationship between teacher(s) and supervisor(s).
5. It requires a high degree of mutual trust, as reflected in understanding, support, and commitment from growth.
6. It is systematic, although it requires a flexible and continuously changing methodology.
7. It creates productive (i.e., healthy) tension for bridging the gap between the real and the ideal.
8. It assumes that the supervisor knows a great deal about the analysis of instruction and learning and also about productive human interaction.
9. It requires both preservice training, especially in observation techniques, and continuous in-service reflection on effective approaches. (p. 34).

Pajak (1990) claimed that clinical supervision was a critical concept for merging the traditional purposes of supervision with the comprehensive educational reform movement of the 1960s.

Supervision continued to change from the 1980s until today through a shift from supervisor driven to that of collaboration between the supervisor and teacher (Ebmeier &

Nicklaus, 1999). Many school reform movements encouraged teacher leadership and shared leadership between supervisors and teachers in school (Darling-Hammond & Goodwin, 1993). Transformational leadership by supervisors in schools supported the change of roles within the school. Collaboration, participatory management, team building, consensus strategies and school improvement teams were factors that began to dominate the culture of schools (Danielson & McGreal, 2000). Zimmerman (2009) called for teachers to participate in reflective teaching practice that takes teachers from the level of awareness to that of action. This transformational school structure led to alternative methods of supervision. Glickman et al. (2002, 2004) proposed the concept of developmental supervision. This method of supervision concentrated on the differences between teachers and their level of expertise. Contextual supervision also developed, concentrating upon unique situations, relationships between teacher and supervisor, the tasks at hand and the environment in which teaching and learning occurs (Ralph, 2002).

Many other types of instructional supervision techniques have developed with teachers utilizing peer and self assessments (Sullivan & Glanz, 2000). The addition of portfolios with personal reflections in addition to the collection of additional data points for supervision changed the role of the supervisor even more.

Supervisory Models

Supervision in schools is carried out through the use of numerous differing supervisory models. Each model lends itself to various types of instructional supervisory practices being implemented by the high school principal or instructional supervisor. The following review of commonly utilized supervisory models framed the instructional supervisory practices identified in this study.

Clinical Supervision

Clinical supervision is best known as a structure of direct supervision used by supervisors with teachers, that was developed from the work of Morris Cogan and his graduate student Robert Goldhammer, with supervisors of intern teachers at Harvard University in the early 1960s (Glickman et al., 2004; Olivia & Pawlas, 2001; Sullivan & Glanz, 2000). Clinical supervision developed through a grounded theory approach, explaining the theory that existed through their practice in working with teachers at that time (Garman, 1990). Cogan (1973) defined clinical supervision as

...the rationale and practice designed to improve the teacher's classroom performance. It takes its principal data from the events of the classroom. The analysis of these data and the relationship between teacher and supervisor form the basis of the program, procedures, and strategies designed to improve the students' learning by improving the teacher's classroom behavior (p. 8).

Goldhammer (1969) proposed the most commonly accepted form of clinical supervision with the following five-stage process: 1) a pre-observation conference with the teacher; 2) classroom observation; 3) supervisor's analysis and interpretation of the data collected in the observation, and planning for the post-observation conference with the teacher; 4) the post-observation conference; and 5) the supervisor's analysis of the post-observation conference.

In the pre-observational conference with the teacher, Cogan (1973) and Goldhammer (1969) both recognized the importance of the supervisor developing a relationship with the teacher to be supervised. According to Sullivan and Glanz (2000), pre-observational planning conferences should identify teacher interests and concerns, make the teacher comfortable with the process, and reinforce that the purpose of the observation is improvement of

instruction. Through a collaborative process, the supervisor and the teacher should establish the focus of the observation. After the primary focus has been established, the supervisor will determine, possibly with input from the teacher, the most appropriate observational tool to use during the classroom visit. To conclude this stage of clinical supervision, the teacher and supervisor finalize the time for the observation and the post-conference meeting.

The second stage in the clinical supervision model is the supervisor observing the teacher in the classroom setting, implementing the lesson discussed in the pre-observational meeting. The supervisor collects the data agreed upon during the pre-conference. Glickman (2002) espoused the critical importance of the supervisor recording descriptions instead of interpretations of the events that take place during the observation. At the end of the observation, the teacher is reminded of the post-observational meeting time and given a copy of the observational tool when appropriate. Interpretation of the descriptions and data collected is to be reserved for the next stage of the clinical supervision cycle.

Data analysis and interpretation is the third stage of the clinical supervision cycle. During this stage, the supervisor reviews the descriptions and data as soon as possible after the observation stage. During this time, the supervisor must try to make sense of a large amount of information. Interpretation of the data emerges from the analyzing the descriptions. Sullivan and Glanz (2000) recommended that, regardless of the observational methods utilized, it is important that the supervisor proceed with caution in making an interpretation.

The last activity that the supervisor must complete in data analysis and interpretation is to determine the interpersonal approach to use with the teacher. Glickman et al. (2004) identified four primary interpersonal approaches that can be utilized to best meet the needs of

the teacher based upon "...the teacher's levels of development, expertise, and commitment and the nature of the situation" (p. 152). These approaches fall upon a continuum from high to low supervisory control: directive control, directive informational, collaborative or nondirective.

Approaches to Supervision

Directive Control Supervision

The directive control approach to supervision is utilized with teachers when it is assumed that the supervisor has greater knowledge and expertise regarding an issue or when teachers are lacking the appropriate skills within a given situation (Glickman, 2002). It may also be used when a teacher refuses to comply with a school policy. In this approach, the final decision always lies with the supervisor. The directive control approach has its roots in the early inspection models of supervision but should not necessarily connote an adversarial relationship. It does however indicate that the supervisor has selected what should work best for the given situation and that she is willing to take responsibility for that decision (Glickman et al., 2004).

Directive Informational Supervision

A supervisor operating under the directive control approach to supervision will remove one item from the directive control approach—the final decision. Directive informational approaches utilize the expertise of the supervisor to provide alternative choices for the teacher regarding a specific goal. The supervisor still determines the goal required for the teacher to meet. Directive informational approaches are generally used when teachers are at relatively low developmental levels or when they are confused about what to try in their

classrooms. The supervisor still retains the expert role in providing choices, so therefore the success of the selected choice is still the responsibility of the supervisor (Glickman, 2002).

Collaborative Supervision

The third interpersonal approach on Glickman's continuum is the collaborative approach. This approach moves beyond the directive approach by encouraging the teacher to share ideas for professional improvement and potential activities to complete them.

Collaboration is best used with teachers that are functioning at medium to higher developmental levels or when the supervisor and the teacher have relatively equal expertise regarding an issue. In the collaborative approach, both the teacher and the supervisor are held responsible for the outcomes. One major concern in supervisors utilizing this type of approach is developing a true collaborative relationship. Supervisors who withhold power during the collaboration aspects of this approach will undermine their attempt at collaboration (Glickman et al., 2004).

Nondirective Supervision

The approach with the lowest level of supervisor intervention is called nondirective. This approach is generally reserved for expert teachers who know more about the issue than the supervisor or when the teachers are going to be accountable for the decision or are highly committed. Glickman et al. (2004) suggested that the ultimate goal is to continuously be moving towards a nondirective approach. Supervisors should be non-judgmental and supportive in their discussions with teachers. They should not come across as lackadaisical.

The supervisor, after selecting an appropriate interpersonal approach for the post-observational conference, leads or facilitates a review of the descriptions and data collected from the observation. Utilizing a directive control approach, the supervisor would identify

the problem or the goal to be addressed by the teacher as well as the appropriate action. A directive informational approach by the supervisor would determine the problem or goal but would allow the teacher choices to meet the goal. In the collaborative approach, the teacher and supervisor would collaboratively discuss the options while in the nondirective approach, the supervisor would facilitate the teacher interpreting the descriptions or data collected and determining the appropriate course of action.

Contextual Supervision

Contextual supervision is based upon a particular milieu in which the supervisor and teacher are involved (Ralph, 2002). Based on the Hersey and Blanchard (1988) situational leadership model, contextual supervision involves a supervisor shifting his/her leadership style based upon the teacher's developmental or readiness level. It is more prescriptive than Glickman's developmental approaches in that the supervisor adjusts his mentorship style based upon the confidence and competence of the teacher in performing a particular task. (Ralph, 1996) described contextual supervision as the relationship between the supervisor's mentorship style and the protégé's developmental level.

The teacher's developmental levels regarding a specific teaching task can fall in to one of four categories. A teacher with low competence and high confidence is located in quadrant D1. A teacher with low competence and low confidence falls in D2. Quadrant D3 includes teachers who are highly competent but with low confidence while teachers that are highly competent and confident fit into quadrant D4. The relationship between the supervisor's style and developmental level are inversely proportionate. S1 supervisory styles indicate high task orientation with low supportive behaviors and providing a directive approach. Conversely, S2 supervisory styles demonstrate high levels of task direction and

support. Supervisory style S3 combines low task with high support while S4 implements low task direction with low support. Contextual supervision is unique because of the purposeful matching of supervisory style with the specific developmental level of the teacher.

Supervisory Options for Instructional Leaders

The Supervisory Options for Instructional Leaders (SOIL) framework developed by Fritz and Miller (2003) pairs various leadership styles with the current developmental level of a teacher. This pairing identifies three levels of structure for supervisors to consider. These levels are placed along a continuum of reward and risk and include: structured, moderately structured and unstructured. Fritz and Miller (2003) placed the conceptual and clinical models of supervision in the structured level; contextual and developmental models in the moderately structured level; and differentiated models in the relatively unstructured level. Supervisory models with less supervisor control have higher risk, but potentially reap greater rewards.

There are many different models of instructional supervision used in formal educational settings today. Each of these models allows educational supervisors the opportunity to implement various instructional supervisory practices. Instructional supervisory practices identified in this study are grounded in these models.

Other Methods of Supervision

Two primary factors have led to the current position of supervision in schools today. First, teachers and supervisors both realize the importance of instructional supervision, but have had serious qualms regarding its outcomes. Secondly, teacher quality along with transformational educational leadership reform movements have promoted a reconfiguration

of how supervisors and teachers work together for improved teacher quality that advances student learning (Danielson & McGreal, 2000).

According to the National Foundation for the Improvement of Education's (1996) report entitled, *Teachers take charge of their learning: Transforming professional development for student success*; "it is...essential for teachers to spend time planning and reviewing student work, mentoring and observing other teachers, studying, collaboratively developing new programs and methods, honing leadership skills, and managing student learning and the work of the school" (p. 32). In addition to the shared responsibility for leading the school as a whole, teachers are also being asked to improve their proficiency in the teaching and learning process. Supervision therefore must continue to change. McGreal, in an interview with Brandt (1996) contended, "Teachers are being urged to move from explicit instructional models to more constructivist teaching—with students actively involved—and more complex outcomes. If that's what teaching is supposed to be, the old models of classroom observation...just don't fit very well" (p. 30). Olivia and Pawlas (2001) concurred that supervisors must develop new methods to help teachers improve student learning when they profess, "...specific practices and procedures...will need to be modified to fit the various types of supervision..." (p. 551). The following section includes several methods of supervision that are supported by supervisors but not necessarily implemented directly by them.

Cognitive Coaching

Cognitive coaching is a model for supervision and personal growth that enhances cognitive processes—enabling coaches or the coached to redefine the way they think and solve problems (Costa & Garmston, 2002). Cognitive coaching is designed with the primary

goal of assisting teachers with the metacognitive activities of self-monitoring, self-analyzing and self-evaluation (Sullivan & Glanz, 2000). Whether a supervisor or peer, a cognitive coach is responsible for facilitating this process through a progression that is rooted in the clinical supervision cycle. Knight (2009) identified several important features of a cognitive coaching approach to supervision. To be effective, the coaching must: 1) focus on professional practice of the teacher, 2) be job-embedded, 3) be ongoing and intensive, 4) grounded in partnership, 5) dialogical, 6) nonevaluative, 7) confidential and 8) facilitated through respectful communication.

Research tends to support the use of cognitive coaching to improve practice following a professional development event. Bush (1984), in a five year study of professional development in California, found that when teachers were presented only a description of new skills to be implemented, 10% of them actually used it in their own practice. When modeling, practice and feedback were added after the professional development event, implementation of the practices increased by two to three percent, respectively. However, when providing a cognitive coaching component in addition to the other activities, 95% of the teachers implemented the practice. In another study 90% of the teachers trained in unit planning who received cognitive coaching implemented the new material into their practice while only 30% of the un-coached teachers implemented the unit planning materials from the professional training event (Knight & Cornett, n.d.).

Two types of supervision closely related to cognitive coaching include peer coaching and mentoring. Showers (1996) differentiated peer coaching from cognitive or other types of coaching. "Similar to our approach, technical coaching, team coaching, and peer

coaching...focus on innovations in curriculum and instruction...whereas collegial coaching and cognitive coaching aim more at improving existing practices...” (p. 14).

Peer coaching actually appears in the educational literature prior to cognitive coaching. Joyce and Showers (1980), in their study of teacher training and impact, identified five major components of teacher training. These included 1) presenting a theory or describing a skill, 2) modeling or demonstrating the skill, 3) practice in simulated and authentic educational settings, 4) structured and open-ended feedback and 5) coaching for application. When combined into a systematic professional development plan, teachers are more likely to make the new skill part of their repertoire.

Mentoring is considered a slightly different type of coaching and is described by Sullivan and Glanz (2000) as “a process that facilitates instructional improvement wherein an experienced educator works with a novice or less experienced teacher collaboratively and nonjudgmentally to study and deliberate on ways instruction in the classroom may be improved” (p. 128). Mentoring’s ultimate success or failure rests upon the development of a trusting and helping relationship between the mentor and the mentee (Glickman et al., 2004).

Critical Friends

Critical friends, originally developed by the Annenberg Institute for School Reform at Brown University, is a structure where teachers form a purposeful group of five to eight practitioners with the sole goal of reviewing student work or studying instructional problems or concerns over the course of the school year (Glickman, 2002). Critical friends structures usually contain a peer coaching component as well as structured, scheduled meetings. Bambino (2002) suggests that the structure of critical friends groups allow “opportunities for colleagues to challenge their own practice as well as that of their peers (p. 26).

Training is considered critical for the success of participants in the critical friends structure. It must focus on building trust needed for “direct, honest, and productive conversations with colleagues about the complex art of teaching” (Easton, p. 25). Training in the process is also considered important. The most common process in implementing the critical friends group is the tuning protocol (Allen, 1995). This protocol structures the manner in which critical friends groups examine student work through seven specific steps. Step one is the introduction. During this stage the facilitator reminds the group of the goals and norms for the session and participants briefly introduce themselves. In the second step, the teacher presents the context in which the student work was given and provides copies of sample student work to be reviewed. After the teacher-presenter has finished, teacher participants are given the opportunity to ask clarifying questions regarding the student work presented. This is not the time to give feedback to the teacher, however. It is to get questions about the work or its context answered. After the teacher-participant questions are answered, time is given for reflection on the student work. Teacher-participants then prepare warm and cool feedback to share with the teacher-presenter, usually one of each. Warm feedback is considered supportive comments while cool feedback takes the form of probing questions regarding the student work. After the reflection time, the teacher-participants share both the warm and cool feedback. The teacher-presenter remains quiet during this time and takes notes regarding the feedback. After all teacher-participants have provided their feedback, the teacher-presenter reflects and responds—especially to the cool feedback. In the final step, the facilitator leads a group debriefing, beginning with the teacher-presenter.

Various adaptations to the tuning protocol exist, however several norms for operation apply (Easton, 2002). Participants must remain firm in keeping the agreed upon time limits to

assure that all presenters receive all components of the protocol; be protective of the teacher-presenters to be sure that the feedback is appropriate and geared towards their goals; and participate by asking stimulating and professionally challenging questions to encourage teacher reflection and growth (Allen, 1995).

Portfolios

Another example of how teachers can become involved in their own supervision and professional development is through the use of teaching portfolios. Painter (2001) maintains that “[a] teaching portfolio is a documented history of a teacher’s learning process against a set of teaching standards” (p. 31). Portfolios can be used to “...support and enrich mentoring and coaching relationships” (Sullivan & Glanz, 2000); enhance professional development (Danielson & McGreal, 2000); in peer assessment (Topping, 2009) or in differentiated supervision (Sullivan & Glanz, 2000).

Teaching portfolios are not to be a scrapbook of teachers’ favorite activities. They must be much more (Painter, 2001). “As portfolios can provide a rich view of teaching in context, a portfolio is often seen as a highly valid instrument for teacher assessment” (van der Schaaf & Stokking, 2008).

There does seem to be conflict between the proponents of portfolios for summative assessment and those who promote its use for formative assessment (Beck, Livne, & Bear, 2005). In order for portfolios to be used for either purpose, it is imperative that the teacher include information that demonstrates the comprehension of given standards. Smith and Tillema (2007) wrote “[s]ummative assessment of the portfolio for certification purposes is expected to be, and should be, carried out in light of explicit standards for teaching” (p. 105). However, to be useful for formative or summative teacher evaluation, the selection of

appropriate artifacts must be considered. Artifacts can be “educational philosophies, classroom management plans, unit and lesson plans, plans to meet the needs of diverse and special needs pupils, and video clips of practice teaching” (Strudler & Wetzel, 2005). Other artifacts that include student work allow the supervisor to see the teacher’s cognitive planning and implementation of the teaching and learning process (Danielson & McGreal, 2000).

Using portfolios as part of the formative and summative evaluation process has several advantages. In addition to allowing the teacher to reflect on his/her own professional practice, portfolios helps the supervisor develop a better understanding of the teacher’s practice (Sullivan & Glanz, 2000).

Standards for Supervision and Evaluation

Teaching standards are utilized as a framework for the supervision of instruction. Toch (2008) professed that explicit standards for teaching are a critical component for promising models of supervision in schools today. Standards should be written so that they are meaningful to educators, legislators and the general public (Holland, 2006).

In her well-known book, *Enhancing Professional Practice: A framework for teaching*, Danielson (1996) reconfigured the components of professional practice developed in 1992 by the Interstate New Teaching Assessment and Support Consortium (INTASC), to be used as a framework for the professional development of teachers (INTASC, 2010). This is shown in Table 2.2.

Table 2.2
Danielson's Four Domains of the Framework for Teaching

Domain 1: Planning and Preparation

- 1a: Demonstrating knowledge of content and pedagogy
- 1b: Demonstrating knowledge of students
- 1c: Setting instructional outcomes
- 1d: Demonstrating knowledge of resources
- 1e: Designing coherent instruction
- 1f: Designing student assessments

Domain 2: Classroom Environment

- 2a: Creating an environment of respect and rapport
- 2b: Establishing a culture for learning
- 2c: Managing classroom procedures
- 2d: Managing student behavior
- 2e: Organizing physical space

Domain 3: Instruction

- 3a: Communicating with students
- 3b: Using questioning and discussion techniques
- 3c: Engaging students in learning
- 3d: Using assessment in instruction
- 3e: Demonstrating flexibility and responsiveness

Domain 4: Professional Responsibilities

- 4a: Reflecting on teaching
- 4b: Maintaining accurate records
- 4c: Communicating with families
- 4d: Participating in a professional community
- 4e: Growing and developing professionally
- 4f: Showing professionalism

Source: Adapted from *Enhancing professional practice: A framework for teaching* (2nd ed., pp. 3-4), by C. Danielson, 2007, Alexandria, VA: ASCD. Copyright 2007 by ASCD.

Her framework placed the components of professional practice within four primary domains: planning and preparation, the classroom environment, instruction, and professional responsibilities. Within each domain there are several behavioral components that represent standards of performance for professional practice. Performance on each specific element of the component is rated on a four-level scale and is shown in Figure 2.2 below. Danielson (2008) has developed a set of electronic rubrics to be used to assist in rating the level of

performance on these elements as unsatisfactory, basic, proficient or distinguished that can be modified for use in numerous settings. Several iterations of Danielson's model have been developed by agencies, foundations, school districts and states (Toch, 2008) for the professional development, supervision and evaluation of teachers. The Joint Committee on Standards for Educational Evaluation (JSCEE), an organization comprised of numerous educational and research associations, developed a set of standards for the evaluation of personnel in 1988 that were revised in 2008 (Gullickson & Howard, 2009).

DOMAIN 1: PLANNING AND PREPARATION				
Component 1b: Demonstrating Knowledge of Students				
Elements: Knowledge of child and adolescent development • Knowledge of the learning process • Knowledge of students' skills, knowledge, and language proficiency • Knowledge of students' interests and cultural heritage • Knowledge of students' special needs				
L E V E L O F P E R F O R M A N C E				
ELEMENT	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
Knowledge of content and the structure of the discipline	In planning and practice, teacher makes content errors or does not correct errors made by students.	Teacher is familiar with the important concepts in the discipline but may display lack of awareness of how these concepts relate to one another.	Teacher displays solid knowledge of the important concepts in the discipline and how these relate to one another.	Teacher displays extensive knowledge of the important concepts in the discipline and how these relate both to one another and to other disciplines.
Knowledge of prerequisite relationships	Teacher's plans and practice display little understanding of prerequisite relationships important to student learning of the content.	Teacher's plans and practice indicate some awareness of prerequisite relationships, although such knowledge may be inaccurate or incomplete.	Teacher's plans and practice reflect accurate understanding of prerequisite relationships among topics and concepts.	Teacher's plans and practices reflect understanding of prerequisite relationships among topics and concepts and a link to necessary cognitive structures by students to ensure understanding.
related pedagogy	Teacher displays little or no understanding of the range of pedagogical approaches suitable to student learning of the content.	Teacher's plans and practice reflect a limited range of pedagogical approaches or some approaches that are not suitable to the discipline or to the students.	Teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline.	Teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline, anticipating student misconceptions.
Knowledge of child and adolescent development	Teacher displays little or no knowledge of the developmental characteristics of the age group.	Teacher displays partial knowledge of the developmental characteristics of the age group.	Teacher displays accurate understanding of the typical developmental characteristics of the age group, as well as exceptions to the general patterns.	In addition to accurate knowledge of the typical developmental characteristics of the age group and exceptions to the general patterns, teacher displays knowledge of the extent to which individual students follow the general patterns.
Knowledge of the learning process	Teacher sees no value in understanding how students learn and does not seek such information.	Teacher recognizes the value of knowing how students learn, but this knowledge is limited or outdated.	Teacher's knowledge of how students learn is accurate and current. Teacher applies this knowledge to the class as a whole and to groups of students.	Teacher displays extensive and subtle understanding of how students learn and applies this knowledge to individual students.
Knowledge of students' skills, knowledge, and language proficiency	Teacher displays little or no knowledge of students' skills, knowledge, and language proficiency and does not indicate that such knowledge is valuable.	Teacher recognizes the value of understanding students' skills, knowledge, and language proficiency but displays this knowledge only for the class as a whole.	Teacher recognizes the value of understanding students' skills, knowledge, and language proficiency and displays this knowledge for groups of students.	Teacher displays understanding of individual students' skills, knowledge, and language proficiency and has a strategy for maintaining such information.

Figure 2.2. Danielson's rubric for domain one of the framework for teaching

These standards are applied to the process of evaluating personnel and include the areas of propriety, utility, feasibility and accuracy. Holland (2005), concerned that the JSCEE standards alone prescribed the evaluation of arbitrary behaviors; called for a revised set of standards, built upon the JSCEE standards, that provided teachers and supervisors with the foundation “to reestablish the frayed connection between supervision and the evaluation of teaching” (p. 70). Holland’s six standards included:

1. Differentiated procedures should be used for teacher evaluation. These procedures should be appropriate to respective levels of teachers’ professional development.
2. Teachers and administrators should work as collaborative partners to identify teachers’ professional development goals, to appropriately assess those goals, to analyze data collected as evidence of effort toward and accomplishment of those goals, and to interpret the implications of such evidence for the improvement of teaching and learning.
3. Evaluations of teachers should use data derived from multiple sources and points of time, ideally data are also provided by multiple evaluators.
4. Evaluations of teachers should be both formative and summative; however, the majority of evaluation resources should be used for formative evaluation processes.
5. Evaluation of teachers should be tied both to individual teachers’ professional development goals and to school and/or program improvement goals.
6. Evaluation policies, as well as goals and outcomes that are the basis for evaluation of teaching, should be well defined, plainly articulated, and clearly communicated. Administrators and teachers should be well informed about these policies and goals. (pp. 70-74).

Through the use of these proposed evaluation standards, Holland (2005) contended, "... by portraying evaluation as a process that furthers teachers' professional growth and development, these standards serve to improve both the evaluation of teaching and the practice of supervision" (p. 76).

Principles of Supervision

Supervisory behaviors are deeply embedded in professional educators' understanding of the various principles of supervision. Perceptions of these principles are developed through educational background, training and experience. One of the most frequently cited models comes from the work of Glickman (2002). He developed a continuum of supervisory behaviors that can be used in meetings or conferences with teachers as part of the supervisory process. The supervisory conferencing behaviors include: listening, clarifying, encouraging, reflecting, presenting, problem solving, negotiating, directing, standardizing and reinforcing (Glickman, 2002, pp. 132-133). Each of the conferencing behaviors is listed along the continuum from highest to lowest teacher responsibility. Higher teacher responsibility equates with lower supervisor responsibility while lower teacher responsibility relates to higher supervisor responsibility.

The continuum of behaviors aligns with the previously discussed four interpersonal approaches to supervision of direct control, direct informational, collaborative and nondirective (Glickman et al., 2004). This framework provides the background for their Supervisor's Self-Assessment (Glickman et al., 2004). This assessment can be used for the supervisor and teachers to assess the supervisory style of the supervisor.

Specific instructional supervision practices of supervisors have been drawn from Glickman's (2002) continuum and help serve as the basis for this dissertation.

Teachers' Perceptions of Supervision

Secondary school principals have a variety of supervisory models available for their use in supervising agricultural education instructors. Regardless of the model used, these supervisors exhibit (or fail to exhibit) various instructional supervisory practices. However, Blase and Blase (1999) contended that only scant descriptions of these practices have been generated. In a study by Marquit (1968) the perceptions of the supervisory practices of secondary school principals and the teachers they supervise were evaluated. Supervisors and their teachers were asked to rate several statements relating to instructional supervision practices in the areas of: curriculum development, instructional organization, staffing, providing instructional aids, orienting new staff, providing inservice education, coordinating special services, school community relations and evaluation. In Marquit's calculated composite stimulus perception score, principals tended to perceive themselves as exhibiting selected supervisory behaviors more frequently than did the teachers they supervised.

In a study of Canadian teachers' preferences for who should provide their supervision, Bouchamma (2005) found that teachers preferred supervision by the school principal over self-evaluation, peer assessment, student assessment with the least preferred being no evaluation. Bouchamma suggested the use of a combination model for supervision where principals provide the summative evaluation while the formative supervision is provided through self-assessment, by peers and students.

In a census study of agricultural education teachers in Iowa, Thobega and Miller (2003) compared the interpersonal approach to supervision experienced with their job satisfaction and intention to remain in the profession. Although the study concluded that the interpersonal approach to supervision was not a useful predictor for satisfaction or intent to

remain in teaching; agriculture teachers receiving collaborative supervision did indicate a slightly higher, yet significant level of job satisfaction than those supervised by other methods.

Teachers tend to show a high level of concern regarding their lack of supervision from principals as well. Ziolkowski (1965) found that two-thirds of teachers in a Canadian study indicated that they received no formal supervisory visits from principals. Croft (1968) reported that most teachers in one school district had not been observed very often. Approximately twenty percent of agriculture teachers from Iowa were not observed teaching in their classroom during an entire academic year and one-half had not participated in a preobservation conference (Thobega & Miller, 2003).

Zepeda and Ponticelli (1998) examined the perceptions of 114 elementary and secondary teachers in Oklahoma and Texas. In their study, teachers were asked to share their “best” and “worst” experiences with supervision in an initial essay. In a follow-up essay, the same teachers responded to questions dealing with what they perceived that they wanted, needed and received from instructional supervision. In this study, they identified five subcategories under *Supervision at its Best* and *Supervision at its Worst*. The subcategories under *Supervision at its Best* included: (1) supervision as validation, (2) supervision as empowerment, (3) supervision as visible presence, (4) supervision as coaching, and (5) supervision as a vehicle for professionalism. *Supervision at its Worst* subcategories included: (1) supervision as a dog and pony show, (2) supervision as a weapon, (3) supervision as a meaningless/invisible routine, (4) supervision as a fix-it list, and (5) supervision as an unwelcome intervention. Specific instructional supervisory practices were identified under each subcategory. In their discussion of the findings, Zepeda and Ponticelli (1998) wrote,

“Far more research is needed from many contexts examining teachers’ perceptions on supervision” (p. 71). Additionally, they contended that not only should additional study be done in the area of how supervision is done in schools, the theoretical perspectives of teachers and educational supervisors should also be considered. “Until we know and understand a lot more about teachers’ and supervisors’ beliefs, assumptions, values, opinions, preferences, and predispositions, our theoretical perspectives are not very valuable” (Zepeda & Ponticelli, 1998). This dissertation will add to the scholarship in instructional supervision by looking at agricultural education teachers perceptions regarding instructional supervision in non-formal educational settings.

Research Questions

The purpose of this descriptive study was to determine agricultural education teachers’ perceptions regarding selected instructional supervisory practices perceived to be used in supervising the performance of agriculture teachers in non-formal educational settings. A secondary purpose of this study was to develop an instructional supervisory framework for supervision of teacher performance in non-formal educational settings.

Specifically, this study sought to answer the following questions: 1) What are the perceived beliefs of agricultural education teachers regarding the supervision of instruction? 2) How do agricultural educators perceive the importance of selected supervisory practices in the non-formal educational settings of agricultural education? 3) How frequently are selected supervisory practices experienced in the non-formal educational settings of agricultural education? 4) What were the demographic descriptions of the participants in this study? 5) How do the perceptions of agriculture teachers compare demographically?

Summary

Supervision and evaluation of teachers has changed drastically from its inception. Moving from a directive model of inspection to a more collaborative approach to supervision with specific standards for evaluation, considering multiple evaluators and utilizing data points, today's supervision of teachers has the potential to better meet the professional growth needs of teachers (Danielson & McGreal, 2000). Much research has been done regarding teachers' perceptions of the supervision that teachers receive. Regardless of the isolated implementation of improvements in the supervisory process, teachers still feel that principals do not provide supervisory activities frequently enough.

Over the past one hundred years, experiential learning has been considered an effective teaching methodology. The father of experiential learning, John Dewey (1938) set the stage for including this learning philosophy into classrooms in the United States when he professed, "every experience both takes up something from those [experiences] which have gone before and modifies in some way the quality of those that come after" (p. 35).

Agriculture teacher Rufus Stimson followed Dewey's philosophy by integrating the personal experiences of students into his classroom teaching (Moore, 1988). This led to the development of current SAE programs in agricultural education. Contemporary research does not yet support this type of experiential learning as being related to student achievement; however, since these experiential components exist in agricultural education programs, it is critical that high school principals have an understanding of their theoretical base as well as their practical applications for evaluation of teachers in these programs.

Since the agricultural education delivery model is unique, allowing for the implementing of both formal and non-formal instructional components, in addition to several

program components initiate several questions: Do agriculture teachers perceive that their supervisors provide instructional supervision of all parts of the three-component model? What instructional supervisory practices will have the greatest impact on the evaluation of agricultural education instructors? Most importantly, do supervisors effectively utilize models of supervision to evaluate agriculture teacher's performance in the formal and non-formal components of a well-rounded agricultural education program?

CHAPTER 3: METHODS AND PROCEDURES

Introduction

The purpose of this descriptive study was to ascertain agricultural education teachers' perceptions regarding selected instructional supervisory practices perceived to be used in supervising the performance of agriculture teachers in non-formal educational settings. A secondary purpose of this study was to develop an instructional supervisory framework for supervision of teacher performance in non-formal educational settings. This chapter describes the methods and procedures used while implementing this study. The specific objectives of this study were to:

1. Identify perceived general beliefs regarding supervision of instruction.
2. Identify the perceived importance of selected supervisory practices.
3. Identify the extent to which selected practices are in use in non-formal educational settings.
4. Identify selected demographic data of participants in this study.
5. Compare perceptions of agriculture teachers about selected supervisory practices used in non-formal educational settings based on demographic data.

Design of the Study

Zepeda and Ponticelli (1998) espoused, "Far more research is needed from many contexts examining teachers' perceptions on supervision" (p. 71). This study was designed utilizing a cross-sectional survey design, implemented through an internet-based instrument. Because there were no known research studies of agricultural education teachers' perceptions of supervision in non-formal educational practice, collecting baseline perception data was

appropriate. Similar research design procedures have been followed recently by other researchers to determine perceptions of agricultural education teachers as reported in the premier journal of the discipline, the *Journal of Agricultural Education* in 2010 (Scales & Terry, 2010; Warnick, Thompson, & Tarpley, 2010; Stair, Moore, Wilson, Croom, & Jayaratne, 2010; Giffing, Warnick, Tarpley, & Williams, 2010; Maxwell & Ball, 2010).

Ary, Jacobs, and Sorenson (2010) recognized that the survey questionnaire is an important tool in psychology and education and Wright (2005) indicated that online survey research has become popular with researchers in a variety of disciplines. Since researchers who use the survey method can also enhance the validity of their results (Krosnick, 1999), this method was selected for this study.

Data Source

The target population for this study consisted of high school agricultural education teachers in the United States who were identified on available, electronic state agricultural education instructor directories as of September 27th, 2010. There were 3226 agricultural education instructors included in this population. Literature regarding teachers' perceptions of the supervisory practices they experience with their supervisors in formal educational settings is limited and further research is needed (Zepeda & Ponticelli, 1998). Since agricultural education teachers should utilize the three-component model of agricultural education (Phipps et al., 2008), the formal classroom components of their programs should be complimented by the non-formal educational components of Supervised Agricultural Experience (SAE) and the FFA. When considering perceptions of the instructional supervision agricultural education instructors receive regarding these non-formal components of their employment, no known studies have been identified. This population provided a

group of teachers with experience teaching in formal and non-formal educational settings who were able to provide their perceptions of assessment in the non-formal educational settings of agricultural education.

Sampling Procedure

A sampling procedure was used, rather than a census, to streamline the data collection procedure. It was determined that a sample size of 343 teachers was needed to complete this study. The sample size was calculated based upon a usable population of 3226 and assuming a ± 5 percent margin of error, z value at 95% confidence level, and hypothesized population proportion, $p = 0.50$ (Ary et al., 2010).

Since 343 usable surveys were required, it was determined that 700 questionnaires would be emailed. This number was calculated based upon the results of the pilot-study. Since the pilot-study demonstrated a 55% response rate and a 5% opt-out rate, doubling the required sample size and adding an additional 2% was deemed appropriate.

The sampling frame was drawn from the usable online state agricultural education teacher directories available on August 19, 2010 and updated on September 28, 2010. Since a national study was preferred over individual state or regional studies and no national electronic list was available, the use of an initial convenience sample provided the researcher with a broad cross-section of agricultural education teachers in the United States (Ary et al., 2010). The available, on-line, electronic state directories were retrieved for use and reviewed for duplication and incomplete contact information to minimize frame error prior to drawing the sample.

The states were stratified by the size of the state FFA membership (National FFA Organization, 2010) into four strata: *large* (14,000 – 75,000 members), *medium* (6,000 –

13,999), *small* (3,000 – 5,999) and *very small* (0 – 2,999). The first three strata each contained 12 states while the *very small* stratum contained 14 states. States with available, online electronic directories were then coded by these categories. A disproportional stratified random sampling technique based on the number of agricultural education teachers per state was used to determine the number of respondents to sample from each available state (Ary, Jacobs, & Sorenson, 2010). To meet the calculated sample size requirement of 686, one hundred seventy-five potential respondents from each predetermined FFA size range strata was required. A random selection of participants was then drawn from each state using a random number generator add-in for Microsoft[®] Excel. Table 3.1 shows the *State*, *State FFA membership rank*, *FFA membership*, *agricultural education teachers on the available roster*, and the *sample drawn* for each state used in the sampling frame.

To protect the respondents from potential injury, email addresses were extracted from the state lists, merged into one list and loaded into SurveyMonkey[™] for use in this study.

Instrumentation

A valid and reliable instrument was developed and utilized in this study of high school agriculture teachers in the United States. The instrument was a closed-form questionnaire. A closed-form questionnaire is used when the researcher wants participants to answer questions after considering a defined set of possible answers (Dillman et al., 2009).

Table 3.1
Convenience Sample of States with Available Online Electronic Directories Used in the Study

State	FFA Membership Rank	FFA Membership Size Category	Agricultural Education Teachers on Roster	Sample Drawn	% of Total N
Georgia	3	Large	387	56	7.97
Oklahoma	6	Large	427	62	8.79
Illinois	8	Large	400	58	8.24
Tennessee	13	Medium	329	43	6.11
Iowa	14	Medium	239	31	4.44
Louisiana	17	Medium	194	25	3.60
Pennsylvania	20	Medium	221	29	4.11
Washington	22	Medium	268	35	4.98
Arizona	24	Medium	95	12	1.76
West Virginia	27	Medium	89	34	4.87
Utah	29	Small	101	39	5.53
North Dakota	30	Small	89	34	4.87
New Mexico	34	Small	99	38	5.42
South Dakota	36	Small	79	29	4.14
Montana	38	Very Small	86	72	10.29
New Jersey	42	Very Small	66	63	9.02
Maine	46	Very Small	57	55	7.79

Survey items were developed after a thorough review of the literature regarding supervisory practices observed by teachers of those who are responsible for the evaluation of teachers, primarily high school principals, in several settings (Blase & Blase, 2004;

Bouchamma, 2005; Marquit, 1968; Pajak, 1989; Thobega & Miller, 2003; Zepeda & Ponticelli, 1998; Ziolkowski, 1965).

The instrument was divided into three parts. Part one included 10 general belief concept statements regarding instructional supervision. A five-point Likert-type scale was used (1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, or 5 – Strongly Agree) to determine the participants' general beliefs regarding supervision. Part two of the instrument included 28 behavior statements. Participants were asked to respond to two categories regarding each statement—1) the level of importance of the selected supervisory behavior to the agriculture teacher, and 2) the extent to which the selected practice was experienced by the agriculture teacher in the non-formal educational settings found within agricultural education. Once again, a five-point Likert-type scale was used for each part. The importance scale (1 – Not Important, 2 – Somewhat Important, 3 – Moderately Important, 4 – Very Important, and 5 – Extremely Important) was used for section one and the frequency scale (1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Often, 5 – Always) for section two. Part three of the questionnaire contained relevant demographic information to be collected from the respondents and included such items as gender, age, educational level, years taught, and state in which respondents were currently teaching. Respondents were asked to indicate their responses for each closed-ended multiple choice selection or to fill in responses to open-ended questions. The instrument contained clear instructions to assist participants in understanding how to respond to the questionnaire.

A panel of experts was engaged to review the instrument for content, face and construct validity. The panel included five professors from the Agricultural Education and Studies Department at Iowa State University and two Iowa high school agricultural education

instructors pursuing advanced degrees—one in agricultural education and the second in educational administration. The panel was asked to review and provide feedback on the instrument in four areas: 1) clarity of the statements and relevance to the study, 2) suggestions for additional beliefs and/or supervisory behavior statements, 3) frame of the questions, and 4) length of the questionnaire.

A pilot-study was conducted with 20 randomly selected agricultural education instructors from the target population using the recommendations of Sudman (1976). Pilot-study participants' responses were not included in the final data. Feedback from participants in the pilot-study was used to improve the instrument. Cronbach's coefficient, α , (Cronbach's alpha) was used to determine the reliability of the pilot instrument. According to Ary, Jacobs, and Sorenson (2010), Cronbach's alpha is typically used with attitude scales and was appropriate to determine the reliability of the instrument used in this study.

Cronbach's alpha, α , was calculated for the overall pilot instrument, and yielded a reliability of $\alpha=.745$. Had the coefficient score fallen below the $\alpha=.70$ threshold indicated by Nunnally (1978) as acceptable, the instrument would have been revised to improve the coefficient. After feedback from the panel of experts and pilot-study participants, the final revised instrument was prepared for internet dispersal to the participants using SurveyMonkeyTM.

Data Collection Procedures

Approval was sought and received from the Office of Responsible Research (ORR) at Iowa State University prior to beginning this study (Appendix A). An initial invitation/notification email (Appendix D) was sent to the randomly selected participants explaining the purpose of the study and its potential usefulness, how they were selected to

participate, as well as information regarding consent to participate and confidentiality of responses. One week after the notification email, a second email (Appendix D) including the same information found in the invitation/notification email along with a link to the electronic questionnaire developed with SurveyMonkey™ was sent to the participants. Three additional follow-up emails were sent to the remaining non-respondents at one-week intervals.

SurveyMonkey™ is an online survey instrument that has numerous features and simplifies the survey process significantly. SurveyMonkey™ provides confidentiality of responses, tracks non-respondents and recontacts them automatically through predetermined email messages (Rosenbaum & Lidz, 2007). The survey is accessed through a link embedded in the email to the participants. By connecting to the survey via the link, participants automatically give their consent to participate in the study. There are, however some limitations inherent with utilizing SurveyMonkey™. Some institutions with secure internet firewalls will not allow network access to SurveyMonkey™ and participants who do not use the direct link provided to them within the email provided will not be able to be traced (Rosenbaum & Lidz, 2007).

The questionnaire was emailed to 700 randomly selected agricultural education teachers using the email addresses that were available. Email addresses that were not valid at the time of the initial invitation to participate were replaced from a random selection of the remaining teachers in that state until the list was exhausted. After exhausting state lists, 13 email addresses remained defunct, and 17 of the 23 participants who had opted out of responding to the study were not able to be replaced due to state lists being exhausted. Initial responses totaled 278 for a preliminary response rate of 41.50%. After removing the 44 unusable partial responses, 234 usable surveys were collected out of a total of 670 valid email addresses for a final response

rate of 34.93%. Although the sample needed was calculated at 343, the 234 respondents were deemed appropriate for this baseline study. Although a 34.93% response rate fell below Fowler's (2001) recommended minimum response rate of 50%; a recent white paper produced by SuperSurvey[®] (Hamilton, 2009) indicated that the average survey response rate from a meta-data sample of 199 nationally-focused e-mail based surveys was 32.52%. Table 3.2 illustrates the number of agricultural education teachers contacted, actual respondents per state, and percentages from each state.

To control for non-response error as a threat to the external validity of this study, a comparison between early and late respondents was used. There are several techniques in which non-response bias can be controlled (Miller & Smith, 1983). Pace (1939) indicated that subjects who respond late are similar to non-respondents. This method has been used frequently as reported in the *Journal of Agricultural Education*, however there has been no agreed upon operational definition for "late respondent" (Lindner, Murphy, & Briers, 2001). For the purpose of this study, "early respondent" was operationally defined as subjects who responded as a part of the first wave of respondents. "Late respondent" was then operationally defined as those who responded to the final two waves of contacts. The final two waves were used as recommended by Lindner et al. (2001) since the final wave of this study only secured five respondents. By including the last two waves, the number of late respondents was increased to 31, meeting the recommendation of 30 or more responses to be "meaningful practically and statistically" (Lindner et al., 2001, p 52). An independent samples t-test was used (level of significance, $\alpha = .05$) to determine if there were statistically significant differences between early and late respondents (Ary et al., 2010).

Table 3.2
Distribution of Responses of Agricultural Education Teachers by State (n=234)

State	Initial Contacts <i>f</i>	Usable Responses <i>f</i>	Percent Response Rate
Arizona	10	4	36.36
Georgia	56	15	26.79
Illinois	58	21	36.21
Iowa	30	18	58.06
Louisiana	24	7	28.00
Maine	47	4	7.55
Montana	59	37	61.67
New Jersey	60	21	34.43
New Mexico	37	10	26.32
North Dakota	33	17	50.00
Oklahoma	58	15	24.19
Pennsylvania	27	8	27.59
South Dakota	29	16	53.33
Tennessee	41	11	25.58
Utah	34	12	31.58
Washington	34	7	20.00
West Virginia	33	11	32.35
Total	670	234	34.93

Of the 10 supervision beliefs statements in part one of the questionnaire, only one statement—*instructional supervision is all about the teacher including what he/she does or does not do in the learning situation*, showed a statistically significant difference ($MD=.015$) between the early and late respondents. In part two of the questionnaire, *level of importance*

of selected instructional supervisory practices, there was no statistically significant difference between early and late respondents on any of the 28 items. However, there were significant statistical differences between early and late respondents on five items in section three; *extent instructional supervisory practices were experienced in non-formal educational settings of the agricultural education program*. Table 3.3 summarizes each of the items that were different.

Table 3.3
Independent Samples t-test to Determine Differences in Means Between Early and Late Respondents on Survey Items (n=234)

Belief Statement	t-test for equality of means			
	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Mean Difference</i>
Instructional supervision is all about the teacher including what he/she does or does not do in the learning situation	-2.470	132	.015	-.433
Instructional Supervision Behaviors-Frequency				
My supervisor gives me praise when appropriate in working with students in non-formal setting	-2.206	132	.029	-.436
My supervisor describes teaching behaviors he/she observes me demonstrate in non-formal settings	-2.760	132	.007	-.519
My supervisor provides feedback regarding how I relate with student in non-formal settings	-2.566	132	.011	-.517
My supervisor provides me with resources and time to improve my educational practice in non-formal settings	-2.588	132	.011	-.527

After identifying each of the significantly different items from the questionnaire, the mean scores for each of the demographics of the early and late respondents were also compared using an independent samples *t*-test as presented in Table 3.4. *Age* and *years of experience* were found to be statistically significant with late respondents tending to be older

by 4.68 years and having 4.107 more years of teaching experience than the early respondents which may impact the differences found in Table 3.3.

Table 3.4
Independent Samples t-test to Determine Differences in Means Between Early and Late Respondents on Demographic Items (n=234)

Demographic	t-test for equality of means			
	<i>t</i>	<i>df</i>	<i>Sig.</i> <i>(2-tailed)</i>	<i>Mean</i> <i>Difference</i>
Age	-2.322	130	.022	-4.680
Years of Experience	-2.194	130	.030	-4.107

Therefore, it can be concluded that the late respondents were not significantly different from the early respondents when considering their *beliefs regarding instructional supervision* and the *importance of selected instructional supervision behaviors exhibited by their supervisors*. Since there were statistical differences between early and late respondents on five of 28 items in the *extent instructional supervision practice experienced in non-formal settings* section, great care must be taken in generalizing these results back to the original population of agricultural education teachers who participated in this study (Radhakrishna & Doamekpor, 2008).

Data Analysis

Data from the survey were coded and entered into the Predictive Analytics SoftWare (PASW 18.0) Statistics Package. To identify and correct potential measurement error, twenty-five data sets were randomly selected and cross-checked with the coded data. Internal consistency of the instrument was determined by calculating a Cronbach's alpha of $\alpha=.955$.

For objectives one through three: 1) identify perceived general beliefs regarding supervision of instruction, 2) identify the perceived importance of selected supervisory practices, and 3) identify the extent to which selected practices are in use; data was analyzed to determine the mean score, frequencies, percentages and standard deviations for each item. For objective one, a mean score ≤ 1.49 was considered *strongly disagree*, between 1.5 to 2.49 as *disagree*, between 2.5 to 3.49 as a *neutral level of agreement*, between 3.5 to 4.49 as *agree* and ≥ 4.5 as *strongly agree*. For objective two, a mean score ≤ 1.49 was considered as a supervisory behavior that was *not important*, between 1.5 to 2.49 as *somewhat important*, between 2.5 to 3.49 as *moderately important*, between 3.5 to 4.49 as *very important* and ≥ 4.5 as *extremely important*. For objective three, a mean score ≤ 1.49 was considered as a supervisory behavior that was *never* experienced, between 1.5 to 2.49 as *rarely* experienced, between 2.5 to 3.49 as *sometimes* experienced, between 3.5 to 4.49 as *often* experienced, and ≥ 4.5 as *always* experienced.

Frequencies and percentages were analyzed to describe the next objective: 4) identify selected demographic data of participants. The final objective: 5) Compare perceptions of agriculture teachers about selected supervisory practices used in non-formal educational settings based on demographic data was analyzed by t-test and analysis of variance (*ANOVA*). Differences in beliefs, importance of supervisory practices and frequency of their use were analyzed based upon the respondents' gender, age, level of education, years taught and state group in which currently teaching. The statistical level of significance (α) was set at 0.05, *a priori*. Statistics collected were summarized and presented in tables and graphs developed in PASW as appropriate.

Assumptions/Limitations of the Study

This study was limited to agricultural education teachers in the United States who were identified on all available and usable, online, electronic state directories on July 12, 2010 (N=17). Since a disproportionate stratified random sample was drawn from the available online directories and not all state directories, caution must be used in generalizing anything beyond the sample contacted.

The perceptions of the agricultural educators regarding supervisory beliefs, importance of selected supervisory practices, and frequency of experience with these selected supervisory practices in non-formal educational settings were investigated through this study. The impact of these behaviors on teachers or students was not considered. It is assumed that the respondents filled out the questionnaire accurately. Additionally, the perceptions of agricultural education teachers regarding supervisory beliefs, importance of supervisory practices, and frequency of experience with these supervisory practices were collected at a specific point in time. Since agricultural educators continue to have new experiences over time, their perceptions may continue to change and therefore are only relevant to the timeframe in which they were collected.

Summary

This study sought to answer the following questions: 1) What are the perceived beliefs of agricultural education teachers regarding the supervision of instruction? 2) How do agricultural educators perceive the importance of selected supervisory practices in the non-formal educational settings of agricultural education? 3) How frequently are selected supervisory practices experienced in the non-formal educational settings of agricultural

education? 4) What were the demographic descriptions of the participants in this study? 5) How do the perceptions of agriculture teachers compare demographically?

A questionnaire was developed from a thorough review of the literature. The instrument contained four parts which included: 1) general beliefs regarding supervision, 2) importance of selected supervisory practices of high school principals, 3) extent to which the supervisor demonstrates selected practices in the non-formal components of agricultural education, and 4) relevant demographic information.

Means, frequencies and percentages were selected to describe and compare the beliefs, importance of the behaviors and frequency in which the behavior was experienced. T-tests and *ANOVA* were selected to compare perceptions based upon demographic information.

This study was limited to the frame of agricultural education teachers that were identified on available state directories on July 12, 2010. Findings of this study were generalized to the frame population, based on the time frame in which the study was completed, and only considered the perceptions of agricultural education teachers regarding the survey items listed.

CHAPTER IV: FINDINGS

The purpose of this descriptive study was to ascertain agriculture education teachers' perceptions regarding selected instructional supervisory practices perceived to be used in supervising the performance of agriculture teachers in non-formal educational settings. A secondary purpose of this study was to develop an instructional supervisory framework for supervision of teacher performance in non-formal educational settings. This chapter describes the findings of this study. The specific objectives of this study were to:

1. Identify perceived general beliefs regarding supervision of instruction.
2. Identify the perceived importance of selected supervisory practices.
3. Identify the extent to which selected practices are in use in non-formal educational settings.
4. Identify selected demographic data of participants in this study.
5. Compare perceptions of agriculture teachers about selected supervisory practices used in non-formal educational settings based on demographic data.

Demographic Characteristics

This section provides a descriptive overview of the demographics of the agricultural education teachers who participated in this study. Demographic characteristics of the agricultural education teachers in this study considered: gender, age, highest level of education attained, years of teaching experience, and the state in which the respondent was teaching at the time of participation in the study.

The distribution of respondents' gender in this study is shown in Table 4.1, *Participants of the Study by Gender*, and indicates that 70.51% of the respondents were male.

Table 4.1
Participants in the Study by Gender (n=234)

Gender	<i>f</i>	%
Male	165	70.51
Female	69	29.49

The age of respondents in this study ranged from 22 to 71 with a mean age of 40.62 years. The largest number of respondents fell in the 47-51 year age group (15.22%) while the ≥ 62 year age group included 1.3% of the respondents. Table 4.2 shows the distribution of respondents' age, corresponding frequency, percentage and cumulative percentages within five-year ranges.

Table 4.2
Distribution of Age of Respondents (n=230)

Age Range	<i>f</i>	%	Cumulative %
22 – 26	29	12.61	12.6
27 – 31	34	14.78	27.4
32 – 36	31	13.48	40.9
37 – 41	23	10.00	50.9
42 – 46	33	14.35	65.2
47 – 51	35	15.22	80.4
52 – 56	27	11.74	92.2
57 – 61	15	6.52	98.7
≥ 62	3	1.30	100.0%

M=40.62 SD=11.172

The distribution of the highest level of education attained is summarized in Table 4.3,
Distribution of Agricultural Education Teachers' Highest Level of Education Attained and

indicates that 58.4% of the agricultural education teachers who participated in the study had a Bachelor's degree, 40.7% held a Master's Degree, while 0.9% had attained a PhD or EdD degree.

Table 4.3

Distribution of Agricultural Education Teachers' Highest Level of Education Attained (n=231)

Level of Education	<i>f</i>	%
Bachelor's	135	58.4
Master's	94	40.7
PhD/EdD	2	0.9

Table 4.4 illustrates the years of experience of the agricultural education teachers in this study. Years of experience ranged from 1 year to 49 years.

Table 4.4

Distribution of Agricultural Education Teachers' Years of Teaching Experience (n=232)

Years of Experience	<i>f</i>	%	Cumulative %
0 – 4	48	20.69	20.7
5 – 9	45	19.40	40.1
10 – 14	32	13.79	53.9
15 – 19	27	11.64	65.5
20 – 24	30	12.93	78.4
25 – 29	21	9.05	87.5
30 – 34	21	9.05	96.6
≥ 35	8	3.45	100.00

M=14.86 SD=10.412

Respondents with 0 – 4 years of experience made up 20.69% of the study’s participants while those with 35 or more years of experience represented 3.45% of the respondents.

Agricultural education instructors from seventeen states participated in the study. Table 4.5, *Distribution of Respondents by State* shows the distribution of respondents by state, frequencies, percentages and cumulative percentages.

Table 4.5
Distribution of Respondents by State (n=234)

State	<i>f</i>	%
Arizona	4	1.71
Georgia	15	6.41
Illinois	21	8.97
Iowa	18	7.69
Louisiana	7	2.99
Maine	4	1.71
Montana	37	15.81
New Jersey	21	8.97
New Mexico	10	4.27
North Dakota	17	7.27
Oklahoma	15	6.41
Pennsylvania	8	3.42
South Dakota	16	6.84
Tennessee	11	4.70
Utah	12	5.13
Washington	7	2.99
West Virginia	11	4.70

Montana had the largest number of respondents (37) while the states with the smallest number of respondents were Arizona and Maine (1.7% each).

Beliefs Regarding Instructional Supervision

Data was collected on ten general belief statements regarding instructional supervision. Table 4.6, *Mean Ratings of Perceptions of Agricultural Education Teachers Regarding Selected Beliefs Related to Instructional Supervision*, shows the mean ratings by descending order. A mean score of ≤ 1.49 was considered as a supervisory belief in which the respondent *strongly disagreed*, between 1.5 to 2.49 as *disagreed*, between 2.5 to 3.49 as *neutral level of agreement*, between 3.5 to 4.49 as a statement with which respondents *agreed* and ≥ 4.5 as a statement in which the respondents *strongly agreed*.

Respondents had a high level of agreement with the following statements regarding instructional supervision: *should be used in all teachable moments* (M=4.22), *is participatory development of the teaching and learning process* (M=3.94), *is conducted ultimately to help the learner* (M=3.76), and *is more art than science* (M=3.59). Conversely, respondents had a lower level of agreement with the following statements: *is best conducted in a structured, teacher-centered situation* (M=2.43), and *is best done in formal classroom settings* (M=2.29).

Table 4.6
Frequencies, Percentages¹, and Mean Ratings² of Perceptions of Agricultural Education Teachers Regarding Selected Beliefs Related to Instructional Supervision

Instructional Supervision...	$\frac{f}{\%}$					<i>n</i>	<i>Mean</i>	<i>SD</i>
	1	2	3	4	5			
should be used in all teachable moments	1 .4	8 3.4	11 4.6	131 55.3	82 34.6	233	4.22	.726
is participatory development of the teaching and learning process	2 .8	10 4.2	26 11.0	157 66.2	39 16.5	234	3.94	.724
is conducted ultimately to help the learner	4 1.7	28 11.8	32 13.5	126 53.2	43 18.1	233	3.76	.949
is more art than science	5 2.1	16 6.8	74 31.2	114 48.1	25 10.5	234	3.59	.851
is basically an administrative tool used by principals and superintendents	24 10.1	79 33.3	48 20.3	64 27.0	18 7.6	233	2.88	1.152
is all about the teacher including what he/she does/does not do in the learning situation	1 .4	8 3.4	11 4.6	131 55.3	82 34.6	234	2.79	1.004
is mainly for professional development purposes	14 5.9	92 38.8	65 27.4	53 22.4	9 3.8	233	2.79	.989
is solely for evaluation of performance	24 10.1	120 50.6	45 19.0	35 14.8	10 4.2	234	2.52	1.007
is best conducted in a structured, teacher-centered situation	15 6.3	136 57.4	50 21.1	31 13.1	1 .4	233	2.43	.818
is best done in formal classroom settings	26 11.0	136 57.4	52 21.9	19 8.0	1 .4	234	2.29	.786

¹Percentages may not equal 100% due to missing cases.

²The belief statements were rated on a Likert-type scale of 1 to 5, where 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree.

Importance of Selected Instructional Supervision Practices in Non-formal Educational Settings

Data was collected regarding agricultural education teachers' perceptions on 28 statements regarding the importance of instructional supervision in non-formal educational settings. Table 4.7, *Frequencies, Percentages, and Mean Ratings of Perceptions of Agricultural Education Teachers Regarding the Importance of Selected Instructional Supervision Behaviors in Non-formal educational settings*, identifies the mean ratings for each statement in descending order. A mean score ≤ 1.49 was considered as a supervisory behavior that was not important, between 1.5 to 2.49 as somewhat important, between 2.5 to 3.49 as moderately important, between 3.5 to 4.49 as very important and ≥ 4.5 as extremely important. Respondents rated the following statements regarding the importance of selected instructional supervision behaviors in non-formal educational settings as very important: *understands my role as a teacher in non-formal educational settings* (M=3.93), *supports and facilitates my work in non-formal educational settings* (M=3.75), *provides me with resources and time to improve my educational practice in non-formal educational settings* (M=3.73), *instills confidence in me about the work I do in non-formal educational settings* (M=3.61), and *observes me in a variety of educational settings* (M=3.59). Respondents indicated a lower level of importance with the following statements: *attends FFA meetings for the purpose of supervision* (M=2.31) and *attends SAE visitations for the purpose of supervision* (M=2.19).

Table 4.7
Frequencies, Percentages¹, and Mean Ratings² of Perceptions of Agricultural Education Teachers Regarding the Importance of Selected Instructional Supervision Behaviors in Non-formal Educational Settings

My Supervisor...	$\frac{f}{\%}$					<i>n</i>	<i>Mean</i>	<i>SD</i>
	1	2	3	4	5			
understands my role as a teacher in non-formal settings	5 2.1	16 6.8	38 16.0	107 16.0	68 28.7	234	3.93	.958
supports and facilitates my work in non-formal settings	9 3.8	24 10.1	41 17.3	103 43.5	57 24.1	234	3.75	1.057
provides me with resources and time to improve my educational practice in non-formal settings	8 3.4	20 8.4	49 20.7	106 44.7	50 21.2	233	3.73	1.004
instills confidence in me about the work I do in non-formal settings	12 5.1	22 9.3	60 25.3	91 38.4	49 20.7	234	3.61	1.076
observes me in a variety of educational settings	7 3.0	27 11.4	61 25.7	100 42.2	39 16.5	234	3.59	.995
recognizes my individual teaching efforts in the non-formal settings of agricultural education	6 2.5	33 13.9	71 30	95 40.1	28 11.8	233	3.45	.964
gives me praise when appropriate in working with students in non-formal settings	13 5.5	23 9.7	74 31.2	93 39.2	31 13.1	234	3.45	1.023
is available for discussion and providing feedback about my teaching in non-formal settings	11 4.6	32 13.5	66 27.8	96 40.5	29 12.2	234	3.43	1.026
is supportive of me trying new teaching strategies in the non-formal settings of my program	8 3.4	40 16.9	68 28.7	81 34.2	37 15.6	234	3.42	1.055
provides feedback regarding how I relate with students in non-formal settings	10 4.2	36 15.2	65 27.4	100 42.2	22 9.3	233	3.38	.997
shows interest in my professional growth in non-formal settings	9 3.8	41 17.3	68 28.7	85 35.9	31 13.1	234	3.38	1.042

Table 4.7 (continued)

My Supervisor...	1	2	3	4	5	<i>n</i>	<i>Mean</i>	<i>SD</i>
gives me descriptive, constructive criticism regarding my teaching in non-formal settings	16	34	62	100	22	234	3.33	1.056
	6.8	14.3	26.2	42.2	9.3			
gives me feedback and suggestions in working with students in non-formal settings	10	46	71	88	19	234	3.26	1.003
	4.2	19.4	30.0	37.1	8			
describes teaching behaviors he/she observes me demonstrate in non-formal settings	10	52	81	81	10	234	3.12	.948
	4.2	21.9	34.2	34.2	4.2			
makes his/her expectations about my teaching in the non-formal setting known	15	54	70	80	14	233	3.10	1.033
	6.3	22.8	29.5	33.8	5.9			
works with me to improve my teaching in non-formal settings	14	54	81	66	19	234	3.09	1.036
	5.9	22.8	34.2	27.8	8			
elicits my opinion about how to improve my teaching in non-formal settings	16	57	70	76	15	234	3.07	1.048
	6.8	24.1	29.5	32.1	6.3			
engages in dialogue with me about my teaching in non-formal settings	17	62	81	60	14	234	2.97	1.027
	7.2	26.2	34.2	25.3	5.9			
makes suggestions to improve my teaching in non-formal settings	17	61	82	62	11	233	2.95	1.005
	7.2	25.7	34.6	26.2	4.6			
encourages me to try new teaching strategies in non-formal settings	22	57	76	66	12	233	2.95	1.056
	9.3	24.1	32.1	27.8	5.1			
helps me increase awareness of my own teaching practice in non-formal settings	21	58	81	64	10	234	2.93	1.025
	8.9	24.5	34.2	27.0	4.2			
uses a variety of observational techniques with me in non-formal settings	26	67	72	57	12	234	2.84	1.076
	11.0	28.3	30.4	24.1	5.1			
delineates between instructional supervision for improvement and evaluation	27	62	75	61	7	232	2.82	1.044
	11.4	26.2	31.6	25.7	3.0			
records, analyzes and shares observation data from observing me in non-formal settings	31	65	66	59	12	233	2.81	1.114
	13.1	27.4	27.8	24.9	5.1			

Table 4.7 (continued)

My Supervisor...	1	2	3	4	5	<i>n</i>	<i>Mean</i>	<i>SD</i>
openly discusses with me philosophical views of teaching and learning in non-formal settings	31	76	71	44	11	233	2.69	1.070
	13.1	32.1	30.0	18.6	4.6			
models questioning strategies to use in non-formal settings	30	79	77	39	9	234	2.65	1.026
	12.7	33.3	32.5	16.5	3.8			
attends FFA meetings for the purpose of supervision	76	58	56	32	9	231	2.31	1.178
	32.1	24.5	23.6	13.5	3.8			
attends SAE visitations for the purpose of supervision	81	68	47	26	9	231	2.19	1.150
	34.2	28.7	19.8	11	3.8			

¹Percentages may not equal 100% due to missing cases.

²The instructional supervision behavior statements were rated on a Likert-type scale of 1 to 5, where 1 = Not important; 2 = Somewhat important; 3 = Moderately important; 4 = Very important; 5 = Extremely important.

Perceived Experienced Frequency of Selected Instructional Supervisory Practices in Non-formal Settings

Table 4.8, *Frequencies, Percentages, and Mean Ratings of Perceptions of Agricultural Education Teachers Regarding the Extent to Which Instructional Supervisory Practices were Experienced in Non-formal Educational Settings*, identifies the mean ratings for each statement in descending order. Respondents rated the instructional supervision behavior statements on a Likert-type scale of 1 to 5, where 1 = Never experienced; 2 = Rarely experienced; 3 = Sometimes experienced; 4 = Often experienced; 5 = Always experienced. When analyzing the results, a mean score ≤ 1.49 was considered as a supervisory behavior that was *never experienced*, between 1.5 to 2.49 as *rarely experienced*, between 2.5 to 3.49 as *sometimes experienced*, between 3.5 to 4.49 as *often experienced*, and ≥ 4.5 as *always experienced*.

Respondents identified no behaviors that were experienced *often* or *always* in the non-formal educational settings of their agricultural education programs. Fourteen of the 28

behaviors were experienced *sometimes*, while thirteen behaviors were experienced *rarely*. One item was *never* experienced by the respondents of this survey.

Four of the practices had a mean rating higher than 3.00 (*sometimes experienced*) on a five point Likert-type scale. These behaviors included: *supports and facilitates my work in non-formal settings* (M=3.19), *gives me praise when appropriate in working with students in non-formal settings* (M=3.03), *is available for discussion and providing feedback about my teaching in non-formal settings* (M=3.03), and *understands my role as a teacher in non-formal settings* (M=3.02).

Three statements had mean ratings lower than 2.00 (*rarely experienced*) and included: *models questioning strategies to use in non-formal settings* (M=1.98), *attends FFA meetings for the purpose of supervision* (M=1.62), and *attends SAE visitations for the purpose of supervision* (M=1.35).

Table 4.8
Frequencies, Percentages¹, and Mean Ratings² of Perceptions of Agricultural Education Teachers Regarding the Extent to Which Instructional Supervisory Practices were Experienced in Non-formal Educational Settings

	<u>f</u>							
	%							
My Supervisor...	1	2	3	4	5	n	Mean	SD
supports and facilitates my work in non-formal settings	25	39	68	70	32	234	3.19	1.187
	10.5	16.5	28.7	29.5	13.5			
gives me praise when appropriate in working with students in non-formal settings	25	50	67	76	16	234	3.03	1.115
	10.5	21.1	28.3	32.1	6.8			
is available for discussion and providing feedback about my teaching in non-formal settings	23	50	81	56	24	234	3.03	1.123
	9.7	21.1	34.2	23.6	10.1			

Table 4.8 (continued)

My Supervisor...	f					<i>n</i>	<i>Mean</i>	<i>SD</i>
	1	2	3	4	5			
understands my role as a teacher in non-formal settings	28	57	64	53	32	234	3.02	1.226
	11.8	24.1	27.0	22.4	13.5			
instills confidence in me about the work I do in non-formal settings	32	51	64	66	21	234	2.97	1.188
	13.5	21.5	27.0	27.8	8.9			
provides me with resources and time to improve my educational practice in non-formal settings	25	58	81	46	23	233	2.93	1.127
	10.5	24.5	34.2	19.4	9.7			
is supportive of me trying new teaching strategies in the non-formal settings of my program	41	47	66	62	17	233	2.86	1.204
	17.3	19.8	27.8	26.2	7.2			
recognizes my individual teaching efforts in the non-formal settings of agricultural education	36	56	70	60	11	233	2.80	1.127
	15.2	23.6	29.5	25.3	4.6			
provides feedback regarding how I relate with students in non-formal settings	35	60	77	49	13	234	2.76	1.112
	14.8	25.3	32.5	20.7	5.5			
shows interest in my professional growth in non-formal settings	41	52	78	47	15	233	2.76	1.154
	17.3	21.9	32.9	19.8				
observes me in a variety of educational settings	43	60	68	53	10	234	2.69	1.139
	18.1	25.3	28.7	22.4	4.2			
gives me descriptive, constructive criticism regarding my teaching in non-formal settings	41	66	84	32	11	234	2.60	1.073
	17.3	27.8	35.4	13.5	4.6			
describes teaching behaviors he/she observes me demonstrate in non-formal settings	46	67	79	31	11	234	2.55	1.092
	19.4	28.3	33.3	13.1	4.6			
gives me feedback and suggestions in working with students in non-formal settings	46	71	73	34	10	234	2.53	1.093
	19.4	30.0	30.8	14.3	4.2			
engages in dialogue with me about my teaching in non-formal settings	58	67	76	26	6	233	2.38	1.056
	24.5	28.3	32.1	11.0	2.5			

Table 4.8 (continued)

My Supervisor...	f					<i>n</i>	<i>Mean</i>	<i>SD</i>
	1	2	3	4	5			
works with me to improve my teaching in non-formal settings	64	74	67	21	7	233	2.28	1.057
	27.0	31.2	28.3	8.9	3.0			
elicits my opinion about how to improve my teaching in non-formal settings	70	65	67	26	5	233	2.27	1.076
	29.5	27.4	28.3	11.0	2.1			
makes suggestions to improve my teaching in non-formal settings	66	67	76	19	5	233	2.27	1.030
	27.8	28.3	32.1	8.0	2.1			
makes his/her expectations about my teaching in the non-formal setting known	73	69	58	27	6	233	2.24	1.097
	30.8	29.1	24.5	11.4	2.5			
delineates between instructional supervision for improvement and evaluation	74	64	65	23	5	231	2.23	1.072
	31.2	27.0	27.4	9.7	2.1			
encourages me to try new teaching strategies in non-formal settings	74	71	61	19	8	233	2.21	1.084
	31.2	30.0	25.7	8.0	3.4			
openly discusses with me philosophical views of teaching and learning in non-formal settings	72	79	56	24	3	234	2.18	1.023
	30.4	33.3	23.6	10.1	1.3			
helps me increase awareness of my own teaching practice in non-formal settings	73	70	69	19	2	233	2.17	.994
	30.8	29.5	29.1	8.0	.8			
uses a variety of observational techniques with me in non-formal settings	88	66	53	24	3	234	2.09	1.060
	37.1	27.8	22.4	10.1	1.3			
records, analyzes and shares observation data from observing me in non-formal settings	101	55	40	26	10	232	2.09	1.201
	42.6	23.2	16.0	11.0	4.2			
models questioning strategies to use in non-formal settings	94	69	51	15	3	232	1.98	1.002
	39.7	29.1	21.5	6.3	1.3			
attends FFA meetings for the purpose of supervision	138	59	24	7	4	232	1.62	.913
	58.2	24.9	10.1	3.0	1.7			

Table 4.8 (continued)

My Supervisor...	<i>f</i>					<i>n</i>	<i>Mean</i>	<i>SD</i>
	1	2	3	4	5			
attends SAE visitations for the purpose of supervision	180	31	14	5	2	232	1.35	.765
	75.9	13.1	5.9	2.1	.8			

¹Percentages may not equal 100% due to missing cases.

²The instructional supervision behavior statements were rated on a Likert-type scale of 1 to 5, where 1 = Never experienced; 2 = Rarely experienced; 3 = Sometimes experienced; 4 = Often experienced; 5 = Always experienced.

Analysis of Teacher Perceptions by Demographic Characteristics

General Beliefs Regarding Instructional Supervision

Gender

Differences in perceptions of agricultural education teachers were compared based on their demographic characteristics using independent samples t-tests and analysis of variance *ANOVA*. When comparing the means of general instructional supervision beliefs by gender, the mean ratings of four statements were identified as statistically significantly different. Table 4.9 displays the four belief statements, the *t* statistic, degrees of freedom, significance, and the mean difference between genders. Since gender was coded 1=male and 2=female, a positive mean difference indicates that the male response was higher than the female response.

Table 4.9
Independent Samples t-test for the Perceived Mean Ratings Related to General Instructional Supervisory Beliefs by Gender

Instructional Supervision Beliefs	<i>t</i>	<i>df</i>	t-test for equality of means	
			<i>Sig.</i> (2-tailed)	<i>Mean</i> <i>Difference</i>
Instructional supervision is more art than science	3.213	232	.002	.384**
Instructional supervision is participatory development of the teaching and learning process	-2.365	232	.019	-.243*
Instructional supervision should be used in all teachable moment situations where teachers and learners interact	-2.110	231	.036	-.218*
Instructional supervision is best conducted in a structured, teacher-centered situation	3.754	147.867	.000	.404**

*Mean difference is significant at the $p=.05$ level. **Mean difference is significant at the $p=.01$ level.

Age Range

Prior to analyzing the differences between the general instructional supervision beliefs and age range, the age range categories were manipulated. Since there were only three respondents (1.3%) in the ≥ 62 category, it was merged with the 57 – 61 age range to form a new category identified as ≥ 57 . Results from a one-way analysis of variance *ANOVA* indicated that there were statistically significant differences between age range and the perceived mean related to general instructional supervisory beliefs on two statements, *instructional supervision is best done in formal classroom settings* and *instructional supervision is best conducted in a structured, teacher centered situation*. Since the assumption of homogeneity of variance was violated in each case, the Welch F-ratio is reported in Table 4.10. There was a significant effect of age range on the belief that *instructional supervision is best done in formal classroom settings*, $F(7,90.627)= 2.735, p =$

.013 and *instructional supervision is best conducted in a structured, teacher centered situation*, $F(7, 90.934)=2.578$, $p = .018$.

Table 4.10
Robust Test for Equality of Means for the Perceived Mean Ratings Related to General Instructional Supervisory Beliefs by Age Range

Instructional Supervision Beliefs	<i>F ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
Instructional supervision is best done in formal classroom settings	2.735	7	90.627	.013*
Instructional supervision is best conducted in a structured, teacher centered situation	2.578	7	90.934	.018*

*Significant at the $p=.05$ level

Further exploration of the Tukey HSD and Bonferroni *post hoc* multiple comparison tests did not reveal statistically significant differences between the group means on the general instructional supervision belief statements and age range identified as significantly different in Table 4.10.

Highest Level of Education

An independent samples t-test was used to compare the perceived means related to *general instructional supervision beliefs* by the *highest level of education attained*. Since only 0.9% (2) of the respondents held a PhD/EdD, they were merged with the MA/MS category to form a new category *Advanced Degree*. The t-test identified no statistically significant differences in the perceived mean scores related to general instructional supervision beliefs between those with a bachelor's or advanced degree.

Experience Range

A one-way analysis of variance *ANOVA* was computed to determine if there were statistically significant differences between years of *teaching experience* and the perceived mean related to *general instructional supervisory beliefs*. No statistically significant differences were identified. However, it was determined that the assumption of homogeneity of variance was violated in three cases, therefore the Welch F-ratio was calculated, yet yielded no statistically significant differences.

State Sampling Groups

A one-way analysis of variance *ANOVA* was also computed to determine if there were differences between the *state sampling groups* and the perceived mean related to *general instructional supervisory beliefs*. No statistically significant differences between the groups were identified.

The Importance of Selected Instructional Supervisory Practices in Non-formal Settings

Gender

The mean scores for the *perceived importance of instructional supervision practices* were compared by gender using an independent samples t-test. Upon initial review, females rated all 28 practices higher than males. The t-test identified 25 of 28 practices with statistically significant differences based on gender. The three practices that revealed no statistically significant differences when comparing the means by gender were: *attends FFA meetings for the purpose of supervision*, *attends SAE visitations for the purpose of supervision*, and *openly discusses with me philosophical views of teaching and learning in non-formal settings*. Table 4.11 displays the 25 significantly different belief statements, the *t* statistic, degrees of freedom, significance, and the mean difference between genders. Since

gender was coded 1=male and 2=female, a negative number indicates that the female response was higher than the male response.

Table 4.11
Independent Samples t-test Regarding the Importance of Instructional Supervisory Practices in Non-formal Educational Settings by Gender

My supervisor...	t-test for equality of means			
	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	<i>Mean</i> <i>Difference</i>
is available for discussion and providing feedback about my teaching in non-formal settings.	-2.912	232	.004	-.422
gives me descriptive, constructive criticism regarding my teaching in non-formal settings	-3.327	232	.001	-.493
gives me praise when appropriate in working with students in non-formal settings.	-2.080	232	.039	-.303
describes teaching behaviors he/she observes me demonstrate in non-formal settings.	-2.048	232	.042	-.276
provides feedback regarding how I relate with students in non-formal settings.	-3.684	231	.000	-.514
gives me feedback and suggestions in working with students in non-formal settings.	-4.185	232	.000	-.582
supports and facilitates my work in non-formal settings.	-3.183	152.226	.002	-.440 ^a
provides me with resources and time to improve my educational practice in non-formal settings.	-4.622	156.546	.000	-.590 ^a
makes his/her expectations about my teaching in the non-formal setting known.	-2.514	231	.013	-.368
recognizes my individual teaching efforts in the non-formal settings of agricultural education	-3.927	231	.000	-.527
records, analyzes and shares observation data from observing me in non-formal settings.	-2.613	231	.010	-.412
delineates between instructional supervision for improvement and evaluation.	-2.662	230	.008	-.396
encourages me to try new teaching strategies in non-formal settings.	-3.371	231	.001	-.499

Table 4.11. (continued)

My supervisor...	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	<i>Mean</i> <i>Difference</i>
uses a variety of observational techniques with me in non-formal settings.	-2.451	232	.015	-.374
engages in dialogue with me about my teaching in non-formal settings.	-2.018	232	.045	-.295
understands my role as a teacher in non-formal settings.	-2.577	232	.011	-.350
instills confidence in me about the work I do in non-formal settings.	-2.818	232	.005	-.428
observes me in a variety of educational settings.	-2.867	232	.005	-.403
shows interest in my professional growth in non-formal settings.	-2.369	232	.019	-.350
works with me to improve my teaching in non-formal settings.	-2.088	118.10	.039	-.319 ^a
elicits my opinion about how to improve my teaching in non-formal settings.	-2.065	232	.040	-.308
makes suggestions to improve my teaching in non-formal settings.	-2.939	231	.004	-.417
helps me increase awareness of my own teaching practice in non-formal settings.	-3.092	232	.002	-.446
is supportive of me trying new teaching strategies in the non-formal settings of my program.	-3.016	232	.003	-.448
models questioning strategies to use in non-formal settings.	-2.571	232	.011	-.374

^aEqual variance is not assumed. Levene's alternative significance is used.

Age Range

Prior to analyzing the differences between the general instructional supervision beliefs and age range, the age range categories were manipulated. Since there were only three respondents (1.3%) in the ≥ 62 category, it was merged with the 57 – 61 age range to form a new category identified as ≥ 57 . Results from a one-way analysis of variance *ANOVA* indicated that there were no statistically significant differences between age range and the

perceived mean related to the *importance of selected instructional supervisory practices in non-formal settings*. The assumption of homogeneity of variance was violated for five statements; however, upon reviewing the robust test of equality of means, no instructional supervisory practices showed a statistically significant difference in the mean ratings based on age range groups.

Highest Level of Education

The mean scores for the *perceived importance of instructional supervisory practices* were compared by *highest level of education* using an independent samples t-test. The t-test identified one out of twenty-eight practices with a statistically significant difference between the means of the two groups. The practice that showed a significant difference when comparing the means was: *supports and facilitates my work in non-formal settings*. Table 4.12 displays the belief statement, the *t* statistic, degrees of freedom, significance, and the mean difference between educational levels. Since *highest level of education* was coded 1=BA/BS and 2=Advanced degree, a negative mean difference indicates that the responses from those respondents with advanced degrees had a higher mean rating than those with a bachelor's degree.

Table 4.12
Independent Samples t-test Regarding the Perceived Importance of Instructional Supervisory Practices in Non-formal Educational Settings by Highest Level of Education

	<u>t-test for equality of means</u> equal variance assumed			
	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	<i>Mean</i> <i>Difference</i>
My supervisor... supports and facilitates my work in non-formal settings	2.296	229	.023	.322

Experience Range

Results from a one-way analysis of variance *ANOVA* indicated that there were statistically significant differences between *experience range* and the perceived mean ratings related to *importance of instructional supervision practices in non-formal settings*. Fourteen of the twenty-eight statements regarding instructional supervisory practice by administrators showed significant statistical differences by experience range. The first twelve statements did not violate the assumption of homogeneity of variance and are displayed in Table 4.13.

Table 4.13
One-way ANOVA to Determine Equality of Means Regarding the Perceived Importance of Instructional Supervisory Practices in Non-formal Educational Settings by Experience Range

My supervisor...	<i>F-ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
gives me descriptive, constructive criticism regarding my teaching in non-formal settings	2.324	7	224	.025
provides feedback regarding how I relate with students in non-formal settings	2.779	7	223	.009
records, analyzes and shares observation data from observing me in non-formal settings	2.684	7	223	.022
delineates between instructional supervision for improvement and evaluation	2.365	7	222	.024
engages in dialogue with me about my teaching in non-formal settings	2.534	7	224	.016
works with me to improve my teaching in non-formal settings	2.738	7	224	.010
elicits my opinion about how to improve my teaching in non-formal settings	2.318	7	224	.027
makes suggestions to improve my teaching in non-formal settings	3.957	7	223	.001
models questioning strategies to use in non-formal settings	2.893	7	224	.007

Table 4.13 (continued)

My supervisor...	<i>F-ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
helps me increase awareness of my own teaching practices in non-formal settings	2.469	7	224	.019
is supportive of me trying new teaching strategies in the non-formal settings of my program	3.013	7	224	.005
is supportive of me trying new teaching strategies in the non-formal settings of my program	2.850	6	217	.011

The assumption of homogeneity of variance was violated for six statements; however, upon reviewing the robust test of equality of means, only two instructional supervision practices showed a significant statistical difference in the means based on *experience range group* and are listed in Table 4.14.

Table 4.14

Robust Test for Equality of Means Related to the Perceived Importance of Instructional Supervisory Practices in Non-formal Educational Settings by Experience Range

Instructional Supervision Beliefs	<i>F-Ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
Gives me feedback and suggestions in working with student in non-formal settings	3.197	7	65.928	.006
Observes me in a variety of educational settings	2.563	7	66.172	.021

After finding significant statistical differences in the means of the *experience ranges* for the *perceived importance of instructional supervisory practices*, a multiple comparison of means was conducted using Tukey's HSD to identify the specific group differences. The experience range differences are displayed by each practice in Table 4.15.

Table 4.15
Multiple Comparisons Between Means Related to the Perceived Importance of Instructional Supervisory Practices in Non-formal Educational Settings by Experience Range

Dependent Variable	Exp.Range (I)	Exp.Range (J)	Mean Diff. (I-J)	Std. Error	Sig.
Provides feedback regarding how I relate with students in non-formal settings	0-4	20-24	.842*	.227	.006
	10-14	20-24	.790*	.248	.035
Gives me feedback and suggestions in working with students in non-formal settings	0-4	20-24	.825*	.228	.008
	10-14	20-24	.794*	.248	.034
Engages in dialogue with me about my teaching in non-formal settings	10-14	20-24	.785*	.255	.048
Makes suggestions to improve my teaching in non-formal settings	0-4	20-24	.742*	.225	.025
		30-34	.780*	.253	.048
	20-24	0-4	-.742*	.225	.025
		25-29	-.867*	.276	.039
Is supportive of me trying new teaching strategies in the non-formal settings of my program	10-14	30-34	.940*	.288	.027
	30-34	≥ 35	-1.315*	.425	.046
	≥ 35	30-34	1.135*	.425	.046

*Mean differences are significant at the $p=.05$ level

State Sampling Groups

A one-way analysis of variance *ANOVA* was also computed to determine if there were differences between the *state sampling groups* and the perceived mean related *perceived importance of instructional supervisory practices*. No statistically significant differences between the groups were identified.

The Extent Selected Instructional Supervisory Practices Experienced in Non-formal Educational Settings

Gender

The mean ratings for the *extent instructional supervision practices experienced in non-formal settings* were compared by *gender* using an independent samples t-test. The t-test identified three of twenty-eight practices with statistically significant differences between the means. The three practices that had significant statistical differences when comparing the means by gender were: *attends FFA meetings for the purpose of supervision* (MD=.35796), *attends SAE visitations for the purpose of supervision* (MD=.27116), and *records, analyzes and shares observation data from observing me in non-formal settings* (MD=.35689). Table 4.16 displays the three instructional supervisory practices, the *t* statistic, degrees of freedom, significance, and the mean difference between genders for each of the statistically significant practices. Since gender was coded 1=male and 2=female, a negative number indicates that the female response was higher than the male response.

Table 4.16
Independent Samples t-test Regarding Extent Instructional Supervision Practices Experienced in Non-formal Educational Settings by Gender

	<i>t</i>	<i>Df</i>	t-test for equality of means	
			<i>Sig.</i> (2-tailed)	<i>Mean</i> <i>Difference</i>
My supervisor...				
attends FFA meetings for the purpose of supervision	3.168	174.727	.002	.358
attends SAE visitations for the purpose of supervision	3.021	199.400	.003	.271
records, analyzes and shares observation data from observing me in non-formal settings	2.075	230	.039	.357

*Equal variance is not assumed. Levene's alternative significance is used.

Age Range

Age range categories were manipulated to balance the groups prior to analysis. To offset the small number of respondents, the ≥ 62 category (1.3% of the respondents) was merged with the 57-61 age range to form a new category identified as ≥ 57 . Results from a one-way analysis of variance *ANOVA* indicated that there were four practices that identified a statistically significant difference between *age range* and the mean related to *the perceived extent instructional supervisory practices experienced in non-formal settings*. The practices were 1) attends SAE visitations for the purpose of supervision ($p=.020$), 2) makes his her expectations about my teaching in the non-formal setting known ($p=.030$), 3) delineates between instructional supervision for improvement and evaluation ($p=.036$), and 4) uses a variety of observational techniques with me in non-formal settings ($p=.007$). Table 4.17 visually represents the F-ratio, degrees of freedom, and significance level for each of the four practices identified as significant.

Table 4.17
One-way ANOVA to Determine Equality of Mean Ratings Regarding Extent Instructional Supervisory Practices Experienced in Non-formal Educational Settings by Age Range

My supervisor...	<i>F ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
attends SAE visitations for the purpose of supervision.	2.550	7	83.707	.020
makes his her expectations about my teaching in the non-formal setting known	2.266	7	221	.030
delineates between instructional supervision for improvement and evaluation	2.193	7	219	.036
uses a variety of observational techniques with me in non-formal settings	2.854	7	222	.007

Upon reviewing the Tukey HSD *post hoc* multiple comparison test, no significant statistical differences were found between age ranges for the following practices: *attends SAE visitations for the purpose of supervision* and *delineates between instructional supervision for improvement and evaluation*. When analyzing the remaining practices, it was determined that agricultural education teachers who were in the ≥ 57 range exhibited a statistically significant difference in their reported mean ratings with four age ranges. Table 4.18 depicts the age ranges, mean difference, standard error, and significance level for each statistically significant difference in age range.

Table 4.18
Multiple Comparisons Between Mean Ratings Regarding Extent Instructional Supervision Practices Experienced in Non-formal Educational Settings by Age Range

Dependent Variable	Age Range (I)	Age Range (J)	Mean Diff. (I-J)	Std. Error	Sig.
makes his / her expectations about my teaching in the non-formal setting known	32-36	≥ 57	-.977*	.318	.048
	≥ 57	32-36	.977*	.318	.048
uses a variety of observational techniques with me in non-formal settings	27-31	≥ 57	-1.065*	.301	.011
	42-46	≥ 57	-1.070*	.303	.011
	47-51	≥ 57	-.917*	.299	.049
	≥ 57	27-31	1.065*	.301	.011
	≥ 57	42-46	1.070*	.303	.011
	≥ 57	47-51	.917*	.299	.049

*Mean differences are significant at the $p=.05$ level

Highest Level of Education

The mean scores for the *extent instructional supervision practices experienced in non-formal settings* were compared by *highest level of education* using an independent

samples t-test. Means were compared between agricultural education teachers with a Bachelor's degree and those with an advanced degree (MA/MS and PhD/EdD). No significant differences were found.

Experience Range

A one-way analysis of variance *ANOVA* was analyzed to determine statistically significant differences between the mean ratings related to *the perceived extent instructional supervision practices experienced in non-formal settings and experience range*. Eighteen practices were identified as having statistically significant differences in mean ratings (nine by *ANOVA*, nine through the robust test for the equality of means). Table 4.19 visually represents the F-ratio, degrees of freedom, and significance level for each of the nine practices identified as significant by the one-way *ANOVA*. The robust test for the equality of means was performed on the nine statements with a significant Levene's statistic. The robust test confirmed that each of the practices had a statistically significant difference between the mean ratings of experience ranges. Table 4.20 lists the Welch F-statistic, degrees of freedom, and significance level for each of these practices.

Table 4.19
One-way ANOVA to Determine Equality of Means Regarding Extent Instructional Supervisory Practices Experienced in Non-formal Educational Settings by Experience Range

My supervisor...	<i>F ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
provides me with resources and time to improve my educational practice in non-formal settings	2.395	7	223	.022
recognizes my individual teaching efforts in the non-formal settings of agricultural education	3.718	7	223	.001
uses a variety of observational techniques with me in non-formal settings	3.554	7	224	.001
engages in dialogue with me about my teaching in non-formal settings	2.936	7	223	.006
openly discusses with me philosophical views of teaching and learning in non-formal settings	2.297	7	224	.028
observes me in a variety of educational settings	3.338	7	224	.002
models questioning strategies to use in non-formal settings	2.341	7	222	.025
helps me increase awareness of my own teaching practice in non-formal settings	2.985	7	223	.005
is supportive of me trying new teaching strategies in the non-formal settings of my program	2.720	7	223	.010

Table 4.20
Robust Test for Equality of Mean Ratings Regarding Extent Instructional Supervisory Practices Experienced in Non-formal Educational Settings by Experience Range

My supervisor	Welch	<i>F ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
gives me praise when appropriate in working with students in non-formal settings		3.520	7	69.631	.003
attends SAE visitation for the purpose of supervision		3.200	7	64.341	.006
makes his/her expectations about my teaching in the non-formal setting known		2.155	7	66.088	.050
records, analyzes and shares observation data from observing me in non-formal settings		4.460	7	65.818	.000

Table 4.20 (continued)

My supervisor ...	Welch	<i>F ratio</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
delineates between instructional supervision for improvement and evaluation		4.438	7	65.910	.000
understands my role as a teacher in non-formal settings		5.160	7	70.448	.000
shows interest in my professional growth in non-formal settings		5.568	7	68.137	.000
works with me to improve my teaching in non-formal settings		3.423	7	66.638	.003
elicits my opinion about how to improve my teaching in non-formal settings		1.933	7	66.103	.037

Upon reviewing the Tukey HSD *post hoc* multiple comparison test, statistically significant differences were found between the means regarding *extent instructional supervision practices experienced in non-formal settings* and *experience range* for 13 of the 18 practices identified in Table 4.19 and 4.20. Practices where no statistically significant differences were found between experience ranges included: *gives me praise when appropriate in working with students in non-formal settings; attends SAE visitations for the purpose of supervision; provides me with resources and time to improve my educational practice in non-formal settings; makes his/her expectations about my teaching in non-formal settings known; and elicits my opinion about how to improve my teaching in non-formal settings.*

When analyzing the remaining practices, it was determined that agricultural education teachers who were in the ≥ 35 years of experience range exhibited a statistically significant difference in their reported means on 11 of the 13 practices with more than one age range in

each of seven practices. Table 4.21 illustrates the age ranges, mean difference, standard error, and significance level for each statistically significant difference in age range.

Table 4.21
Multiple Comparisons Between Means Regarding Extent Instructional Supervisory Practices Experienced in Non-formal Educational Settings by Experience Range

Dependent Variable	Exp. Range (I)	Exp. Range (J)	Mean Diff. (I-J)	Std. Error	Sig.
Recognizes my individual teaching efforts in the non-formal settings of agricultural education	0-4	≥ 35	-1.813**	.413	.000
	5-9	≥ 35	-1.597**	.415	.004
	10-14	≥ 35	-1.375*	.429	.033
	20-24	≥ 35	-1.875**	.430	.001
	25-29	≥ 35	-1.470*	.449	.027
	30-34	≥ 35	-1.804**	.449	.002
	≥ 35	0-4	1.813**	.413	.000
	≥ 35	5-9	1.597**	.415	.004
	≥ 35	10-14	1.375*	.429	.033
	≥ 35	20-24	1.875**	.430	.001
Attends SAE visitations for the purpose of supervision	10-14	30-34	.662*	.214	.045
	30-34	10-14	-.662*	.214	.045
Records, analyzes, and shares observation data from observing me in non-formal settings	20-24	≥ 35	-1.642*	.463	.011
	30-34	≥ 35	-1.899**	.483	.003
	≥ 35	20-24	1.642*	.463	.011
	≥ 35	30-34	1.899**	.483	.003
Delineates between instructional supervision for improvement and evaluation	30-34	≥ 35	-1.583**	.431	.007
	≥ 35	30-34	1.583**	.431	.007

Table 4.21 (continued)

Dependent Variable	<i>Exp. Range (I)</i>	<i>Exp. Range (J)</i>	<i>Mean Diff. (I-J)</i>	<i>Std. Error</i>	<i>Sig.</i>
Uses a variety of observational techniques with me in non-formal settings	0-4	≥ 35	-1.542**	.388	.002
	5-9	≥ 35	-1.603**	.390	.001
	10-14	≥ 35	-1.344*	.402	.021
	15-19	≥ 35	-1.625**	.409	.002
	20-24	≥ 35	-1.858**	.404	.000
	25-29	≥ 35	-1.387*	.422	.026
	30-34	≥ 35	-1.815**	.422	.001
	≥ 35	0-4	1.542**	.388	.002
	≥ 35	5-9	1.603**	.390	.001
	≥ 35	10-14	1.344*	.402	.021
	≥ 35	15-19	1.625**	.409	.002
	≥ 35	20-24	1.858**	.404	.000
	≥ 35	25-29	1.387*	.422	.026
	≥ 35	30-34	1.815**	.422	.001
Engages in dialogue with me about my teaching in non-formal settings	0-4	≥ 35	-1.333*	.392	.018
	5-9	≥ 35	-1.417**	.394	.009
	15-19	≥ 35	-1.481**	.415	.010
	20-24	≥ 35	-1.650**	.409	.002
	30-34	≥ 35	-1.702**	.427	.002
	≥ 35	0-4	1.333*	.392	.018
	≥ 35	5-9	1.417**	.394	.009
	≥ 35	15-19	1.481**	.415	.010
	≥ 35	20-24	1.650**	.409	.002
	≥ 35	30-34	1.702**	.427	.002

Table 4.21 (continued)

Dependent Variable	<i>Exp. Range (I)</i>	<i>Exp. Range (J)</i>	<i>Mean Diff. (I-J)</i>	<i>Std. Error</i>	<i>Sig.</i>
Understands my role as a teacher in non-formal settings	10-14	20-24	.994*	.304	.027
	20-24	10-14	-.994*	.304	.027
Observes me in a variety of educational settings	0-4	≥ 35	-1.521**	.422	.009
	5-9	≥ 35	-1.297*	.424	.050
	30-34	≥ 35	-1.589*	.459	.015
	≥ 35	0-4	1.521**	.422	.009
	≥ 35	5-9	1.297*	.424	.050
	≥ 35	30-34	1.589*	.459	.015
Shows interest in my professional growth in non-formal settings	10-14	30-34	1.061*	.316	.020
	30-34	10-14	-1.061*	.316	.020
	30-34	≥ 35	-1.780**	.468	.004
	≥ 35	30-34	1.780**	.468	.004
Works with me to improve my teaching in non-formal settings	25-29	≥ 35	-1.327*	.433	.049
	≥ 35	25-29	1.327*	.433	.049
Models questioning strategies to use in non-formal settings	20-24	≥ 35	-1.276*	.392	.028
	30-34	≥ 35	-1.429*	.408	.012
	≥ 35	20-24	1.276*	.392	.028
	≥ 35	30-34	1.429*	.408	.012
Helps me increase awareness of my own teaching practice in non-formal settings	10-14	30-34	.914*	.271	.020
	30-34	10-14	-.914*	.271	.020
	30-34	≥ 35	-1.601**	.401	.002
	≥ 35	30-34	1.601**	.401	.002

Table 4.21 (continued)

Dependent Variable	<i>Exp. Range (I)</i>	<i>Exp. Range (J)</i>	<i>Mean Diff. (I-J)</i>	<i>Std. Error</i>	<i>Sig.</i>
Is supportive of me trying new teaching strategies in the non-formal settings of my program	0-4	≥ 35	-1.646**	.449	.007
	20-24	≥ 35	-1.698**	.470	.009
	30-34	≥ 35	-1.679*	.489	.016
	≥ 35	0-4	1.646**	.449	.007
	≥ 35	20-24	1.698**	.470	.009
	≥ 35	30-34	1.679*	.489	.016

*Mean differences are significant at the p=.05 level. **Mean differences are significant at the p=.01 level.

State Sampling Groups

A one-way analysis of variance *ANOVA* was also computed to determine if there were differences between the *state sampling groups* and the perceived mean related to *extent instructional supervisory practices experienced in non-formal settings*. No statistically significant differences between the groups were identified.

Summary

This study sought to answer the following questions: 1) What are the perceived beliefs of agricultural education teachers regarding the supervision of instruction? 2) How do agricultural educators perceive the importance of selected supervisory practices in the non-formal educational settings of agricultural education? 3) How frequently are selected supervisory practices experienced in the non-formal educational settings of agricultural education? 4) What were the demographic descriptions of the participants in this study? 5) How do the perceptions of agriculture teachers compare demographically? This chapter presented the findings of the study.

Means, frequencies and percentages were selected to describe and compare the general beliefs, importance of the selected instructional supervisory practices and extent to which the instructional supervisory practices were experienced by agricultural education teachers in the United States. T-tests and *ANOVA* was selected to compare mean perceptions based upon gender, highest educational degree, age range, years of experience range, and state grouping. Statistically significant differences were identified between demographic variables within each of the three areas of the instrument: *general beliefs regarding instructional supervision, importance of selected supervisory practices in non-formal settings, and extent to which selected instructional supervisory practices were experienced in non-formal settings*. Tables 4.1 through 4.21 delineate the differences identified.

CHAPTER V. DISCUSSION

Introduction

The purpose of this descriptive study was to determine the perceptions of agricultural education teachers regarding selected instructional supervisory practices to be used in supervising the performance of agricultural education teachers in non-formal settings. A secondary purpose of this study was to develop an instructional supervisory framework for supervision of teacher performance in non-formal educational settings. This study sought to answer three research questions based on the purpose of the study. 1) What are the perceived general beliefs of agricultural education teachers regarding the supervision of instruction? 2) How do agricultural educators perceive the importance of selected supervisory practices in the non-formal educational settings of agricultural education? 3) How frequently are selected supervisory practices experienced in the non-formal educational settings of agricultural education? Demographic descriptions of the study's participants and comparisons of perceptions based upon these demographics were also considered.

This chapter will examine and discuss the findings presented in chapter four and develop linkages to the findings of other researchers and authors of related theories. The discussion in this chapter will include an analysis of: demographic characteristics of the participants; agricultural education teachers' perceptions of general supervisory practices; perceived importance of selected supervisory practices used in non-formal educational settings of agricultural education programs; and agricultural education teachers' perceptions of the frequency with which they experienced selected supervisory practices in non-formal educational settings of agricultural education programs.

Analysis of Demographic Characteristics

The target population of this study was all agricultural education instructors in states with accessible, usable online electronic directories available to the researcher on August 19, 2010. From the target population of 3226 agricultural education instructors in seventeen states, a random sample of 670 agricultural education instructors was drawn. Of the 234 usable responses, 70.51% of the agricultural education instructors were male with an average age of 40.62 years. These findings are somewhat different than other prominent teacher perception studies related to instructional supervision. In their study of 809 public school teachers enrolled in on-site and on-line graduate coursework at three major universities in the Southeastern, Midwestern, and Northeastern United States, Blase and Blase (1999) found that 44.98% of their respondents were male and averaged 37 years of age. In Bouchamma's (2005) study of the perceptions of 382 Canadian teachers' preferences towards an instructional supervisory model, 27.75% of the respondents were male and ranged in age from 24-60. Levin, Hoffman and Badiali (1987) surveyed 549 rural Pennsylvania teachers regarding their perceptions of the effectiveness of various supervisory practices where 44% of those who responded were male.

When considering the discrepancies between these studies, the studies of Blase and Blase (1999) and Levin et al. (1987) included elementary, middle- and high school teachers. Most agricultural education teachers in the United States have their primary teaching responsibility within the high school setting. A higher percentage of elementary teachers tend to be female (Zumwalt & Craig, 2005). In Bouchamma's Canadian study, teachers who participated taught in seven large urban centers across Canada. Respondents from this study

included teachers who worked in states with small to very small FFA membership and school districts in very rural areas.

In contrast to the general studies related to teacher perceptions of supervision, studies specific to agricultural education teachers seem to be similar to the gender and age findings from this study. In Thobega and Miller's (2003) census study of Iowa agricultural education teachers' perceptions of instructional supervision, job satisfaction and intention to remain in the teaching profession, 83.14% of the 172 respondents were male and averaged 39 years of age. Additionally, one other national study of agricultural education teachers indicated similar data. Morgan and Rudd's (2006) national study of 167 agricultural education teachers' behavioral factors that influence leadership instruction showed similar demographics with 68.26% of the respondents being male with an average age of 39.37 years.

The target population of this study also revealed two other primary demographic descriptions. Fifty-eight percent of the respondents in this study had earned a Bachelor's degree and had 14.87 years of teaching experience. Blase and Blase's (1999) national study of elementary through secondary teachers differed considerably with 26.95% of their respondents having a Bachelor's degree with an average of 11 years of experience. The difference in highest degree held may stem from the fact that some states highly encourage the attainment of a Master's or advanced degree through salary schedules or even require a Master's degree after a certain period of time; therefore it is difficult to determine if this had an impact on this statistic since the states included in Blase and Blase's (1999) study were not reported. Contradictorily, the study of Levin et al. (1987) was similar to the target population of this study as it revealed that 60% of the rural Pennsylvania teacher-respondents

held a Bachelor's degree and 55% had more than ten years of experience. Additionally, Thobega and Miller's census study of 172 Iowa agricultural education teachers indicated 75.6% of the respondents held a Bachelor's degree and had 14 years of experience which is quite similar to the respondents of the current study. Morgan and Rudd's (2006) national study of agricultural education teachers is also similar as it indicated that respondents averaged 14.85 years of experience. Random sampling of agricultural education teachers at the state and national levels seem to support the demographic findings of the present study.

Seventeen states with accessible, usable electronic directories provided the sampling frame for this national study. Other national level studies of agricultural education teachers published in the premiere journal of the agricultural education profession—*The Journal of Agricultural Education*—tended to use one of four selection methods: 1) Delphi methodology was used by Conners (1998), Dyer and Breja (1995), Mundt and Conners (1999), and Warner and Washburn (2009); 2) the National FFA Advisor's list/National Agricultural Educators Directory was used by Conroy (1999), Conroy and Walker (2000), Dormody, Seever, and Clason, (1996), and Wilson, Camp, and Balschweid (2006); 3) the National Association of Agricultural Educators' (NAAE) national membership directory was used by Jenkins, Kitchel, and Hains (2010); or 4) participants were identified by state supervisors or university faculty, such as in the national studies conducted by Stair et al. (2010), and Warnick, Thompson, and Tarpley (2010). A Delphi methodology was not preferred, and neither an electronic National FFA Advisor's list nor NAAE membership directory was available; therefore, a random sample of agricultural education teachers was drawn from all states with accessible, usable electronic directories.

Perceptions of Agricultural Education Teachers General Beliefs Regarding Instructional Supervision

The perceptions of agricultural education teachers with respect to ten general belief statements regarding instructional supervision were measured using a five point Likert-type scale that ranged from 1 (strongly disagree) to 5 (strongly agree). When analyzing data from this study, a mean score of ≤ 1.49 was considered as a supervisory belief in which the respondent *strongly disagreed*, between 1.5 to 2.49 as *disagreed*, between 2.5 to 3.49 as *neutral level of agreement*, between 3.5 to 4.49 as a statement with which respondents *agreed* and ≥ 4.5 as a statement in which the respondents *strongly agreed*.

Respondents agreed that instructional supervision *should be used in all teachable moments* (M=4.22). This finding was consistent with that of Nolan and Hoover (2008) who identified the first core principle of effective instructional supervision as being “broad and comprehensive in nature, accounting for all of the duties that teachers are expected to perform” (p. 166). Ovando (2001) stated that teacher evaluation systems should “recognize teachers’ contributions that go beyond classroom instruction” (p. 217), and Blase and Blase (1999) professed that teachers believed supervisors should talk with them “in and outside of instructional conferences” (p. 59). Kralovec (2010) stated, “Looking at *all* the work teachers do, not just their time in front of a class, moves us to a more robust understanding of which teaching practices have a significant effect on student learning” (What We Learned section, para. 4).

Respondents also agreed that instructional supervision *is participatory development of the teaching and learning process* (M=3.94). Ellett and Teddlie (2003) reported that one of the most significant developments in the supervision and evaluation of teachers was

“changing the focus of classroom-based evaluation systems from teaching to learning” (p. 107). Involving the teacher in this process became more common through state and national mandates for educational evaluation. The work of Danielson (1996) and her development of four specific domains of professional practice introduced teachers and their supervisors to the critical importance of the process of learning. Her seminal work in this area set the stage for many of the supervision and evaluation standards for teachers in the United States.

Additionally, the collaborative approach of supervision as espoused by Glickman (1990) provided teachers the opportunity to participate in the development of the teaching and learning process within the classroom. Several studies support this assertion. Ziolkowski (1965) found that teachers perceived principals in superior schools as more likely to involve the teacher in decision-making. This finding is also supported by Cogan (1973) and Goldhammer (1969), who developed the clinical supervision model that encourages supervisors and teachers to work together to examine and interpret data that supports the work of the teacher. Thobega and Miller (2003) recommended that supervisors use a collaborative approach in instructional supervision, while Zepeda and Ponticelli (1998) suggested that supervisors should make teachers feel empowered in the instructional supervision process. When the teacher participates in the supervision process to the point where there is shared responsibility with the supervisor, an *organic reciprocity* (Garman, 1982) is said to have been reached.

Respondents also felt that instructional supervision *is conducted ultimately to help the learner* (M=3.76). In a study of teachers who were enrolled in an educational administration program in south central Texas, Ovando (2001) found that teachers believed learner-centered teacher evaluation “may have some potential benefits to enhance teaching and student

learning” (p. 228), while Iwanicki (2001) claimed that instructional supervision is most effective when it is connected to student achievement.

Finally, respondents agreed that instructional supervision *is more art than science* (M=3.59). Marzano’s (2007) text entitled *The Art and Science of Teaching* concluded that although effective teaching can be identified quantitatively, not all research-based strategies work with all students all of the time. More than twenty years prior to Marzano’s text, Berliner (1986) concluded that effective teaching is a dynamic mixture of understanding research-based instructional strategies coupled with a deep knowledge of the students found in the classroom. It can be assumed that if an important component of teaching is art, then effective supervision must also go beyond the purely scientific realm as well. Alfonso, Firth, and Neville (1984) supported this assertion when they stated that a supervisor must utilize a unique managerial, human, and technical skill-mix to be effective with teachers. Ebmeier and Nicklaus (1999) also proclaimed that the collaborative supervision process is complex; utilizing listening, responding, analysis, and problem-solving skills.

Deviating from those practices that were rated with a very high level of agreement, agricultural education teachers disagreed with the following general instructional supervisory beliefs: *is best conducted in a structured, teacher-centered situation* (M=2.43), and *is best done in formal classroom settings* (M=2.29). Since respondents agreed strongly with the statement *should be used in all teachable moments* (M=4.22), it is not surprising that belief statements that limit instructional supervision to structured, teacher centered situations or only classroom settings were not supported by these respondents. This finding is supported by Blase and Blase (1999) and Ovando (2001), as identified above.

Agricultural education teachers believe in the agricultural education model (Retallick, 2010). When considering the non-formal components of their programs within the context of instructional supervision (or lack thereof), agricultural education teachers draw upon their knowledge, experiences and expectations to determine their perceptions of a given situation (Hockebury & Hockenbury, 2010). Agricultural education teachers believe that the non-formal educational settings (SAE and FFA) within the agricultural education model are important in developing the whole student and that supervision should be conducted ultimately to benefit the learner. It is therefore not surprising that their general beliefs relating to supervision in the non-formal educational settings of agricultural education support the notion that instructional supervision should be used in all teachable moments. Since activities within the non-formal components of an agricultural education program do not take place solely in classroom settings where most instructional supervisory visits tend to take place, agriculture education teachers believe that high school principals should supervise instruction beyond the traditional classroom setting.

Agricultural education teachers also believe that they should be involved in the instructional supervisory process. Their background experience providing instruction in the non-formal components of the agricultural education program utilizes student interest to develop experiential learning activities within the SAE component as well as with student planning, implementing, and evaluating of the activities within the leadership and personal development component of the program—the FFA. Likewise, it is logical that they believe high school principals should also involve them as agricultural education teachers in the process of supervision.

Agricultural education teachers are not typically supervised outside of the traditional classroom setting. They are not always engaged by their supervisors. Past research shows that they prefer collaborative supervision when given the choice (Thobega & Miller, 2003; Zepeda & Ponticelli, 1998). They also believe strongly that supervision should be conducted to help the learner. When considering each of these components collectively, agricultural education teachers consider instructional supervision to be more art than science. These beliefs have been socialized within agricultural education teachers and have an impact upon their behaviors. When considering Ferguson and Bargh's (2004) work regarding social perception's causation of automaticity of behavior, it is critically important that agricultural education teachers perceive that their principal is performing instructional supervisory practices that support their beliefs.

Perceptions of Agricultural Education Teachers Regarding the Importance of Selected Instructional Supervisory Practices in Non-formal Educational Settings

Data was collected from the respondents of this study on a questionnaire that contained 28 selected practices regarding the importance of instructional supervision in non-formal educational settings. Agricultural education teachers who participated in this study rated the importance of four selected instructional supervision practices in non-formal educational settings as very important, 21 practices as moderately important, and two practices as somewhat important. No practices were identified as extremely important or not important.

The practice with the highest mean rating was *understands my role as a teacher in non-formal settings* (M=3.93). The literature shows that this has been an ongoing concern for agricultural education teachers. Moore and Camp (1979) found that many times

administrators do not understand the role of the agricultural education teacher while Pajak (1989) suggested that successful supervisors should empathetically understand the teacher and his/her point of view.

Respondents also thought that the supervisory practice *supports and facilitates my work in non-formal settings* (M=3.75) was very important. Blase and Blase (1999) indicated that supportive interactions between supervisors and teachers often lead to effective instructional leadership. Pajak (2001) claimed teachers must be “well supported in developing their capacity to teach” (p. 237), while Zepeda and Ponticelli (1998) espoused that teachers are empowered when supervision allows teachers to try new things. Ebmeier (2003) professed the importance of supervisors providing support for teachers when he stated, “By providing support for teaching . . . , principals build confidence in the administration, which creates commitment to the building and ultimately generates commitment to teaching” (p. 138).

Agricultural education teachers also rated *provides me with resources and time to improve my educational practice in non-formal settings* (M=3.73) as very important. Blase and Blase (2004) indicated successful instructional leaders provide adequate resources and time for teachers’ professional growth. In a later study, they reported that 42.4% of the teachers in a national study identified the unfair withholding of resources needed as mistreatment by the principal (Blase, Blase, & Du, 2008). Teacher support by the instructional supervisor is very important and can come in many forms. Ovando (2001) suggested that teacher support by a supervisor can include professional development, additional time, and needed materials.

Instill[ing] confidence in me about the work I do in non-formal settings was also rated as very important to agricultural education teachers (M=3.61). Zepeda and Ponticelli, (1998) espoused the importance of giving praise, Ovando (2001) suggested that evaluation systems should contribute to the recognition of teachers, while Blase and Blase (2004) professed that praise given by supervisors has a positive effect upon teachers and can be given formally or informally, publically or privately.

Respondents view of the importance of the practice *observes me in a variety of educational settings* (M=3.59) is supported by Ovando (2001) and Blase and Blase (1999) and correlates with their support of the general instructional belief, *should be used in all teachable moments*.

Respondents in this study identified two instructional supervisory practices as only *somewhat important* for supervisors to demonstrate in non-formal educational settings. When considering agricultural education teachers perceptions of the importance of the practice *attends FFA meetings for the purpose of supervision* (M=2.31), the literature does not seem to support the finding. Agricultural education teachers and administrators both seem to place a high value on the work of the teacher with FFA activities. Cepica (1979) reported that Oklahoma agricultural education teachers and administrators both agreed on the importance of FFA activities in the summer component of the agricultural education program when they ranked working with FFA activities third from a list of ten items to be completed during the summer contract. Rush and Foster (1984) discovered that administrators and teachers both identified maintaining an FFA chapter as a high priority. Hilton (1981), in his study of 100 Iowa agricultural education teachers and their school district superintendents also concluded that FFA activities are valued highly by both agricultural education teachers

and their administrators. Additionally, Thompson (1986) recommended that agricultural education teachers should make efforts to involve administrators in FFA activities.

Respondents also rated *attends SAE visitations for the purpose of supervision* (M=2.19) as only *somewhat important*. This finding seems in to be in conflict with a perception study by Swortel (1996) where Tennessee agricultural education teachers rated the statement *school administrators should be supportive of time off during the school day for teachers to make supervisory visits* at 3.16 on a 4.00 Likert-type scale. North Carolina high school principals perceived SAE to be an important component of an agricultural education program and agricultural education teachers should actively supervise their students, however they do not believe that they are doing so (Rayfield & Wilson, 2009). Part of their perceptions may be directly related to Swortel's (1996) wording regarding 'time off' for SAE supervisory visits. 'Time off' may conjure up an image of non-engagement in educational endeavors with high school principals. Agricultural education teachers should be communicating to their principals the importance of deep educational engagement with students during SAE supervisory visits. In addition, several studies also indicated that agricultural education teachers do not implement SAE as it has been conceptualized (Dyer & Osborne, 1995; Retallick, 2010; Wilson & Moore, 2007). One way that was recommended to improve SAE in agricultural education programs was for administrators and agricultural education teachers to work together to evaluate visitation and the number of visits per year (Rush & Foster, 1984).

Since agricultural education instructors who participated in this study think it is very important that their instructional supervisor understand their role as a teacher in non-formal educational settings; support and facilitate their work in non-formal educational settings;

provide them with resources and time to improve their educational practice in non-formal educational settings; instill confidence in them about the work they do in non-formal educational settings; and observe them in a variety of educational settings; it would therefore seem logical that they would consider it important to encourage their supervisor to attend FFA activities and SAE visitations with them for the purpose of supervision.

Agricultural education teachers' develop their perceptions regarding the importance of instructional supervisory practices in non-formal settings by drawing upon their previous experiences and expectations or by reacting to specific stimuli within a given setting (Hockenbury & Hockenbury, 2010). Past professional interactions between agricultural education teachers and their instructional supervisors serve to provide the experiences from which their perceptions are drawn. When considering Ferguson and Bargh's (2004) theory regarding the effect of perception on individual behavior, it is critical that agricultural education teachers' perceptions regarding items of importance in supervision is known.

Perceptions of Agricultural Education Teachers Regarding the Frequency Selected Instructional Supervisory Practices Experienced in Non-formal Educational Settings

Even more important than agricultural education teachers' perceptions related to the importance of instructional supervisory practices is their perception of what they experience within the supervisory process. Agricultural education teachers from the target population of this study perceived that fourteen of the selected practices were experienced *sometimes*; thirteen of the practices were experienced *rarely*; and one of the practices was *never* experienced in non-formal educational settings. No practices were rated by the agricultural education teachers in this study as *always* or *often* experienced in non-formal educational settings. When considering the selected practices perceived by agricultural education

teachers as being experienced *sometimes*, only four of the selected practices had a mean rating higher than 3.00 on a five point Likert-type scale. The practices included: *supports and facilitates my work in non-formal settings* (M=3.19); *gives me praise when appropriate in working with students in non-formal settings* (M=3.03); *is available for discussion and providing feedback about my teaching in non-formal settings* (M=3.03); and *understands my role as a teacher in non-formal settings* (M=3.02).

When considering these statements pragmatically, it is reasonable to conclude that instructional supervisors perform these practices with agricultural education teachers more than *rarely* or *never*. This means that the practices are occurring in the non-formal educational settings of agricultural education programs, but not at frequencies high enough for the respondents to rate them any higher than *sometimes*. This finding seems to differ with that of Thobega and Miller (2003) in their study of the relationship between instructional supervision and job satisfaction of Iowa agricultural education teachers. They concluded “a significant number of agriculture teachers in Iowa were neither supervised nor evaluated during a complete academic year” (p. 64). It may be reasonable to assume that agricultural education teachers that are not supervised nor evaluated by their supervisor would not receive support and facilitation, praise, discussion and feedback, or a feeling that their supervisor understood their role as a teacher in the non-formal components of their agricultural education program.

Part of the discrepancy between Thobega and Miller’s (2003) finding and the respondents in the current study may be that in 2006, the Iowa Board of Educational Examiners and the Iowa State Board of Education developed new rules for evaluator training and endorsement renewal for properly licensed and endorsed administrators in Iowa (IAC

284.10). Prior to 2006, many Iowa school districts did not have comprehensive teacher evaluation policies in place. Furthermore, many other states have increased their focus on the supervision of teachers to improve student achievement as part of the No Child Left Behind legislative act of 2001 (P.L. 107-110, 2002) and more recently through the current Race to the Top legislation of the *American Recovery and Reinvestment Act of 2009*, (Public Law 111-5). It is evident that the national focus on educational reform may have had an impact on the instructional supervision practices agricultural educators receive in general as well as in the non-formal educational settings of their agricultural education programs.

Agricultural education instructors who participated in this study also identified two practices that were *rarely experienced* and one practice that was *never experienced* in the non-formal components of their agricultural education program. Respondents of this study *rarely experienced* the instructional supervisory practice *models questioning strategies to use in non-formal settings* (M=1.98). This seems consistent with educational research. Although Pajak (2001) recommended that supervisors should model the behaviors they expect teachers to demonstrate; Bouchamma (2005) indicated that the classical supervision model is based on the premise that supervisors demonstrate how to teach the components of the program to those that they supervise; Nasca (1976) reported that teachers viewed supervisors' demonstrations in their own classroom settings as valuable; yet Blase and Blase (1999) found that teachers perceived that their principals modeled teaching techniques only occasionally. Blase and Blase (2004) and Pajak (2000) emphasized the importance of modeling by instructional supervisors as a practice to help teachers improve instruction in their classrooms. A study of secondary Tennessee teachers' perceptions of principal effectiveness

conducted by Williams (2000) also found that secondary school principals do not spend enough time on instructional improvement.

A second instructional supervisory practice that agricultural education teachers perceived as *rarely experienced* in supervision in non-formal educational settings is *attends FFA meetings for the purpose of supervision* (M=1.62). This finding also seems to be supported by the literature. Rayfield and Wilson (2009) indicated that teachers perceived principals as rewarding FFA more than SAE. Respondents from the present study rated the frequency that supervisors attended FFA meetings higher than attending SAE visitations, although neither was rated very highly.

Agricultural education teachers also perceived that their instructional supervisor *never attends SAE visitations for the purpose of supervision* (M=1.35). Previous studies have made recommendations regarding this practice. Thompson (1986) suggested that agricultural education teachers “educate and inform superintendents about SOE and involve them in SOE activities” (p. 40). Hilton (1981) reported that ninety percent of Iowa superintendents surveyed indicated that they “had never accompanied the vo-ag teacher on an SOE visit—many indicated they would be interested in doing so” (p. 32). However, this finding does seem to be consistent with Rayfield and Wilson’s (2009) study of North Carolina principals’ perceptions of SAE. In their study, the researchers found that North Carolina high school principals do not recognize their teachers for conducting SAE programs. Furthermore, they found that only 10% of high school principals recognize agricultural education teachers’ efforts relative to SAE in their annual teaching evaluation. Unfortunately, after a thorough review of the literature, no research has been identified by the researcher regarding the

agricultural education teachers' perceptions of their instructional supervisors related to the SAE program.

Agricultural education teachers perceive that their supervisors *rarely* modeled questioning strategies in non-formal educational settings or attended FFA meetings for the purpose of instructional supervision. They also perceived that their instructional supervisors *never* attended SAE visitations for the purpose of supervision. Hilton (1981) concluded from his study of Iowa agricultural education teachers and their superintendents that SAE and FFA activities are the “backbone of a successful [agricultural education] program” (p. 35). Camp, Clark, and Fallon (2000) also contended that SAE is vital to comprehensive local programs. Since SAE and FFA are the primary non-formal educational components of agricultural education, it is interesting that agricultural education teachers perceive that their supervisors rarely or never participate in those activities for the purpose of supervision. However agricultural education teachers also perceived that these same administrators will sometimes: support and facilitate their work in non-formal educational settings; give praise regarding the work they do with students in non-formal educational settings; are available for discussion and feedback about their teaching in non-formal educational settings; and understands their role as a teacher in non-formal educational settings.

This situation raises several questions to consider. Do instructional supervisors support and facilitate, discuss and give praise, and have an understanding of the role of agricultural education teachers in non-formal educational settings without having the authentic experience of supervising teachers as they implement these activities? Do instructional supervisors collect data from second hand discussions with agricultural education teachers, parents or students regarding SAE and FFA? If not, how valuable is the

praise and support within the instructional supervision process? Or, since agricultural education instructors in this study rated supervisor participation in FFA and SAE activities as only somewhat important, is it possible that they perceive a lower frequency of instructional supervision practices received based upon their perception of the importance of those practices?

Respondents in this study perceived 26 instructional supervisory practices as very or moderately important while at the same time perceived that they only experienced them sometimes or rarely. The combination of these perceived notions creates an overall perception of instructional supervisors and the supervisory process for the agricultural education teachers. When considering Ferguson and Bargh's (2004) theory of how social perceptions can automatically influence behavior, it seems plausible that a negative perception of instructional supervisor and the supervisory process regarding non-formal educational settings by the agricultural education teacher may automatically trigger negative behaviors regarding the importance and implementation of SAE, FFA and other activities within the agricultural education program.

Analysis of Teacher Perceptions by Demographic Characteristics

General Beliefs by Gender

The perceptions of agricultural education teachers regarding ten general belief statements in instructional supervision were measured using a five point Likert-type scale that ranged from 1 (strongly disagree) to 5 (strongly agree). When analyzing data from this study, a mean score of ≤ 1.49 was considered as a supervisory belief in which the respondent *strongly disagreed*, between 1.5 to 2.49 as *disagreed*, between 2.5 to 3.49 as having a *neutral*

level of agreement, between 3.5 to 4.49 as a statement with which respondents *agreed*, and \geq 4.5 as a statement in which the respondents *strongly agreed*.

Responses to the general instructional supervisory beliefs were compared by gender. Four of the general belief statements revealed a statistically significant difference between male and female respondents. Females felt more strongly than males regarding the following belief statements: *instructional supervision is participatory development of the teaching and learning process*; and *instructional supervision should be used in all teachable moment situations where teachers and learners interact*. Males felt more strongly that *instructional supervision is more art than science* and that *instructional supervision is best conducted in a structured, teacher centered situation*.

This finding suggests that female agricultural education teachers tend to have stronger positive beliefs regarding: collaborative supervision as espoused by Darling-Hammond and Goodwin (1993), Ebmeier and Nicklaus (1999), Glickman et al., (2004), Sullivan and Glanz (2000); the learner-centered focus of instructional supervision through the works of Danielson (1996), Ovando (2001), and Iwanicki (2001); and the importance of supervision throughout the entire agricultural education program as espoused by Blase and Blase (1999), Kralovec (2010), Nolan and Hoover (2008), and Ovando (2001). Conversely, males tend to prefer the more traditional types of classroom-centered supervision. This finding tends to be supported by a census study of Ohio agricultural education teachers (Castillo, Conklin, & Cano; 1999) that found male agricultural education teachers rated supervision as the factor most highly correlated with job dissatisfaction. Also, males tended to be more satisfied with traditional, classroom-based instructional supervisory models. Their indication that supervision is more art than science may suggest their frustration with supervisors who

attempt to utilize learner-centered strategies throughout the entire agricultural education program.

Perceived Importance of Selected Instructional Supervision Practices by Gender

Part two of the questionnaire contained 28 selected practices regarding the importance of instructional supervision in non-formal educational settings. A mean score ≤ 1.49 was considered as a supervisory behavior that was *not important*, between 1.5 to 2.49 as *somewhat important*, between 2.5 to 3.49 as *moderately important*, between 3.5 to 4.49 as *very important* and ≥ 4.5 as *extremely important*.

Responses to the importance of the 28 instructional supervisory practices were compared by gender through the use of an independent samples t-test. Upon initial review, females rated all 28 practices higher in terms of importance than did the males that participated in the study. Twenty-five of the 28 practices revealed a statistically significant difference based on gender. The three practices that revealed no significant differences when comparing the means by gender were: *attends FFA meetings for the purpose of supervision*, *attends SAE visitations for the purpose of supervision*, and *openly discusses with me philosophical views of teaching and learning in non-formal settings*.

Female respondents showed a mean difference of ≥ 0.5 over the ratings of males regarding the importance of five instructional supervisory practices: *provides me with resources and time to improve my educational practice in non-formal settings*; *gives me feedback and suggestions in working with students in non-formal settings*; *recognizes my individual teaching efforts in the non-formal settings of agricultural education*; *provides feedback regarding how I relate with students in non-formal settings*; and *encourages me to try new teaching strategies in non-formal settings*.

These findings indicate that females felt more strongly than the male agricultural education teachers in this study that their supervisor should: provide them with time and resources; give feedback and suggestions; encourage them to try new strategies; and recognize their individual efforts in the non-formal educational settings of the agricultural education program. These findings support the notion that males and females communicate with different purposes. Murphy and Zorn (1996) contend that women communicate to connect with people while men communicate to solve problems. Each of the selected supervisor practices listed above demonstrates a need for females to develop a relationship with her supervisor. These findings also seem to be supported by the literature when one considers Rutherford's (1985) claim that principals should intervene with teachers in a supportive manner; Champlin (1987) shared the importance of principals creating a supportive environment; Marshall (2005, p. 773) espoused that principals should give teachers "prompt, face-to face feedback after every classroom visit," and Zepeda (2006) stated that teachers need administrative support that promotes personal and professional growth. Material support is also considered important for teachers in the time of educational reform (Zembylas & Barker, 2007). The literature also supports the notion that teachers want and need to feel respected as a professional. "Dignity and mutual respect among teachers and administrators must be clearly expected and demanded" (Normore & Floyd, p. 771).

Perceived Frequency of Selected Instructional Supervision Practices Experienced by Gender

Agricultural education teachers' perceptions regarding the *extent instructional supervision practices [were] experienced in non-formal settings* were compared by *gender*. Only three of 28 practices identified statistically significant different means when comparing

them by gender: *attends FFA meetings for the purpose of supervision, attends SAE visitations for the purpose of supervision, and records, analyzes and shares observation data from observing me in non-formal settings*. In each case, male agricultural education teachers perceived that these practices were experienced more often than did the female teachers. It is interesting that female teachers rated the importance of all twenty-eight items higher than their male counterparts, yet identified little difference in the frequency in which the items were experienced. This finding tends to support the supposition that the instructional supervision practices received by agricultural education teachers is consistent based upon gender.

However, when analyzing the findings of Blase, Blase, and Du (2008); there seems to be divergence from the present findings. Female teachers identified several supervisor behaviors in a national study of teacher mistreatment occurring more often than males reported these same behaviors. Blase, Blase, and Du (2008) found behaviors towards females that directly contradicted the supervisory practices identified in the current study: the supervisor's use of negative terms to describe their teaching behaviors, being unjustly critical, insulting or ridiculing them, failure of supervisors to support them, and failure to recognize work-related achievements.

One reason that the study by Blase et al. (2008) shows quite different perceptions of supervisor practices (or behaviors) is the context of the study. The present study framed the statements regarding supervisory practices in non-formal educational settings contextually within the frame of agricultural education. On the other hand, the study by Blase et al. (2008) surveyed 172 elementary, middle, and high school teachers in the United States who had identified themselves as having experienced mistreatment by a principal. Additionally, the

self-administered questionnaire used in the study was collected at the website of the National Association for the Prevention of Teacher Abuse (<http://endteacherabuse.org/>). Since their study was contextualized under the premises of mistreatment, one would expect the results to differ from a study framed around non-formal education within agriculture.

General Beliefs and Perceived Importance of Supervisory Practices

Age Range

When considering the differences in general supervisory beliefs and the perceived importance of supervisory practices by age range, no statistically significant differences were found. However, there were statistically significant differences between *age range* and the mean on two of 28 items related to *the perceived extent instructional supervisory practices experienced in non-formal settings*. Respondents in the ≥ 57 age group rated *makes his/her expectations about my teaching in the non-formal setting known* MD = .977 higher than those in the 32-36 year age group. Respondents in the ≥ 57 age group also rated *uses a variety of observational techniques with me in non-formal settings* higher than three other age ranges: 27-31 (MD = 1.065); 42-46 (MD = 1.071); 47-51 (MD = .918).

When considering the entire set of 28 instructional supervisory practices used in this study across eight age ranges, statistically significant differences on two practices demonstrates a high level of agreement between the age ranges regarding the frequency in which they were experienced in non-formal educational settings. However, it is not surprising that the differences would originate from those in the ≥ 57 age group. For teachers who began teaching at age 22, teachers in this age group would be eligible for state retirement pensions and may tend to be more honest about their experiences and attitudes

about the profession of education. Additionally, the maturity level of older teachers may give them greater insight into the instructional practices of their supervisors.

Highest Level of Education Attained

When evaluating the responses of the agricultural education teachers in this study by *highest level of education attained*, there were no statistically significant differences in the mean ratings of respondents' general beliefs regarding supervision. When comparing the perceived importance of supervisory practices by *highest level of education attained*, only one of the 28 practices showed a statistically significant difference between groups.

Respondents with a Bachelor's degree rated the practice *supports and facilitates my work in non-formal settings* 0.322 higher than those with a Master's degree. Although statistically significant, the practical significance of this finding is minimal. However, it is quite likely that respondents with a Master's degree may have tended to have more confidence in their teaching ability than respondents with a Bachelor's degree and therefore did not perceive administrative support as being as critical for their success in the non-formal educational settings within their agricultural education program. When considering differences in the mean ratings regarding the *perceived frequency of supervisory practices experienced* by educational level, no statistically significant differences were identified.

Experience Range

When considering the age range of the respondents of the present study, there were no statistically significant differences concerning general beliefs regarding instructional supervision. Differences were identified, however, when comparing the mean ratings regarding the *importance of instructional supervisory practices in non-formal settings* on five of the 28 instructional supervision practices identified in this study. The least experienced

respondents in the study with zero to four years of teaching experience rated three practices as more important than peers with longer tenure: 1) *provides feedback regarding how I relate with students in non-formal settings*, 2) *gives me feedback and suggestions in working with students in non-formal settings*, and 3) *makes suggestions to improve my teaching in non-formal settings*. Receiving feedback regarding their work with students in non-formal educational settings seems to be quite important to agricultural education teachers with limited experience in the field as they begin to determine what works for them in the different components of the agricultural education program.

Respondents with 10-14 years of experience rated four practices regarding the *importance of instructional supervisory practices in non-formal settings* significantly higher than their more experienced peers: 1) *provides feedback regarding how I relate with students in non-formal settings*, 2) *gives me feedback and suggestions in working with students in non-formal settings*, 3) *engages in dialogue with me about my teaching in non-formal settings*, and 4) *is supportive of me trying new thing teaching strategies in the non-formal settings of my program*. As agricultural education teachers gain experience and confidence, feedback remains important in their professional growth, however, it becomes more important to them to begin trying new strategies and engaging in dialogue about what they are doing in the non-formal components of their program.

As teachers moved beyond twenty years of experience, less importance for feedback, dialogue, and supervisory support for implementing new teaching strategies was indicated by respondents of this study when compared to teachers with less than 14 years of teaching experience.

Perceived Frequency of Selected Instructional Supervisory Practices Experienced *Experience Range*

When analyzing the differences between the *frequency of supervisory practices experienced in non-formal settings* by *experience range*, it is evident that respondents from this study with ≥ 35 years of teaching perceive their instructional supervisors to be demonstrating more practices in non-formal educational settings than do respondents from nearly every other age range in this study. More importantly, agricultural education teachers with ≥ 35 years of experience perceive that their instructional supervisors *recognize their individual teaching efforts in the non-formal settings of agricultural education* with mean differences between 1.375 and 1.875 higher than six of the seven age groups identified in this study. Additionally, these highly experienced teachers rated the following instructional supervision practices differently with mean differences between 1.276 and 1.899 higher than their less experienced peers: 1) *records, analyzes and shares observational data from observing me in non-formal settings*, 2) *delineates between instructional supervision for improvement and evaluation*, 3) *uses a variety of observational techniques with me in non-formal settings*, 4) *engages in dialogue with me about my teaching in non-formal settings*, 5) *observes me in a variety of educational settings*, 6) *shows interest in my professional growth in non-formal settings*, 7) *works with me to improve my teaching in non-formal settings*, 8) *models questioning strategies to use in non-formal settings*, 9) *helps me increase awareness of my own teaching practice in non-formal settings*, 10) *is supportive of me trying new teaching strategies in the non-formal settings of my program*. The most experienced teachers who participated in this study perceived their instructional supervisors as demonstrating more practices related to the non-formal components of their agricultural education program than

did less experienced teachers. More experienced teachers have probably worked with numerous high school principals over their tenure. Additionally, they have weathered numerous budgetary problems, educational reform initiatives, and changes in local administration. Part of their ability to remain in the teaching profession for many years may be attributed to the importance they place upon all components of the agricultural education program. As experienced teachers, they have developed relationships with their high school principals that are informative and encouraging towards helping the teacher improve instruction in the non-formal components of their programs.

When general beliefs, perceived importance of instructional supervisory practices, and perceived frequency of instructional supervisory practices experienced were considered by state group, no statistically significant differences were identified.

Demographic differences in perceptions of agricultural education teachers' general beliefs regarding supervision, the importance, and frequency of selected supervisory practices in non-formal settings are related primarily to gender and years of teaching experience. It is important that agricultural education teachers and their supervisors understand that males and females as well as those with differing levels of experience perceive instructional supervision differently. This is of utmost importance for both parties when participating in collaborative and or differentiated supervision. A deep understanding by an agricultural education teacher of his/her own perception regarding instructional supervision may contribute to individual behaviors that differ from those that come from one who only has superficial understanding of one's own perceptions and beliefs regarding instructional supervision.

Once agricultural education teachers have developed a specific perception regarding supervision, one might suppose that the perception or specific behaviors that result from it continue to remain stagnant. Neisser (1976) explained that perceptions are ever changing. Self-perception theory (Bem, 1972) indicates that individuals can determine their own attitudes from personal observations of their own behavior. Since the instructional supervision process has imbedded within it a natural opportunity for personal reflection, self identification of attitudes, perceptions and behaviors exhibited by the teacher can be used to implement a process of change in the entire instructional supervision process.

If agricultural education teachers implement positive behaviors that initiate professional, collaborative relationships with their instructional supervisor, a positive collaborative environment can be developed. This newly developed environment will influence the social behavior of the teacher in a manner that will enhance rather than detract from the instructional supervision process. Automaticity of behavior of the agricultural education teacher (Bargh, 1990) then becomes a precursor to positive behaviors that can influence the instructional supervisor to implement practices deemed important yet lacking in the non-formal settings of agricultural education. From this theory base, the following framework was developed.

Framework for Enhancing Instructional Supervision in Non-formal Educational Settings

Agricultural education programs are implemented in numerous settings from elementary through adult education (Phipps, Osborne, Dyer, & Ball; 2008). The most commonly recognized implementation of the program is the one found at the high- and middle school levels. This program is typically depicted as a three-pronged program which

includes a formal classroom component, and two non-formal components: an out-of-classroom experiential learning component (SAE), and a leadership development component (FFA).

Agricultural education teachers are supervised and evaluated on their performance as professional educators by instructional supervisors, usually building principals or their designees. Although several researchers have proclaimed the importance of taking into consideration all aspects of a teachers' job when considering the instructional supervision process (Blase & Blase, 1999; Kralovec, 2010; Nolan & Hoover, 2008; Ovando 2001), all instructional supervision models identified in the literature for this study concentrate on the supervisory process that takes place in the classroom setting. If the non-formal components of the agricultural education model are considered important, then supervision should take place within those areas as well.

Agricultural educators in this study provided responses to 10 statements regarding their perceived beliefs regarding instructional supervision in general as well as their perceived importance of 28 specific instructional supervisory practices and the frequency in which they perceive receiving those practices in the non-formal educational components of their agricultural education programs. Based on their beliefs and perceptions identified in this study, along with a review of the literature and the researchers' experiences, a framework for enhancing instructional supervision in non-formal educational settings of agricultural education was developed (Figure 5.1). The purpose of the framework is to provide a guide for the enhancement of instructional supervision in non-formal educational settings.

The framework is designed around two primary components of the instructional supervision process: 1) what agricultural education teachers do, and 2) what instructional

supervisors do. Each list of activities performed by the participants in the framework is depicted in a continuous improvement cycle. Six key activities initiated by the agricultural education teacher provide precursory collaborative instructional supervision activities that initiate a collaborative relationship with the instructional supervisor. The six instructor-initiated activities are summarized in Table 5.1 and include: 1) initiate professional dialogue with the instructional supervisor about the teaching and learning process as it relates to the non-formal educational settings of the program, 2) invite the instructional supervisor to participate in one or more of the activities that take place within the non-formal educational settings of the agricultural education program, 3) request the instructional supervisor to observe a non-formal educational activity conducted in the agricultural education program for the purpose of formative assessment, 4) develop an annual goal for the individual professional development plan related to a non-formal component of the agricultural education program, 5) collect artifacts and develop in-depth professional reflections from non-formal educational activities of the agricultural education program, and 6) repeat the previous five procedures in a continuous process that leads towards continuous improvement of the supervisory process.

Table 5.1

A Framework for Enhancing Instructional Supervision in Non-Formal Educational Settings of Agricultural Education - The Teacher's Role

What Agricultural Education Teachers Can Do

- 1) Initiate dialogue with instructional supervisor regarding the non-formal components of the program.
 - 2) Invite instructional supervisor to participate in one or more activities that take place within the non-formal educational settings of the agricultural education program.
 - 3) Request the instructional supervisor to observe a non-formal educational activity conducted in the agricultural education program for the purpose of formative assessment.
 - 4) Develop an annual goal for the Individual Professional Development Plan related to a non-formal component of the agricultural education program.
 - 5) Identify and collect portfolio artifacts and develop in-depth professional reflections from non-formal educational activities that meet one or more of the required teacher educational development standards.
 - 6) Repeat the previous five procedures in a continuous process that leads towards continuous improvement of the supervisory process.
-

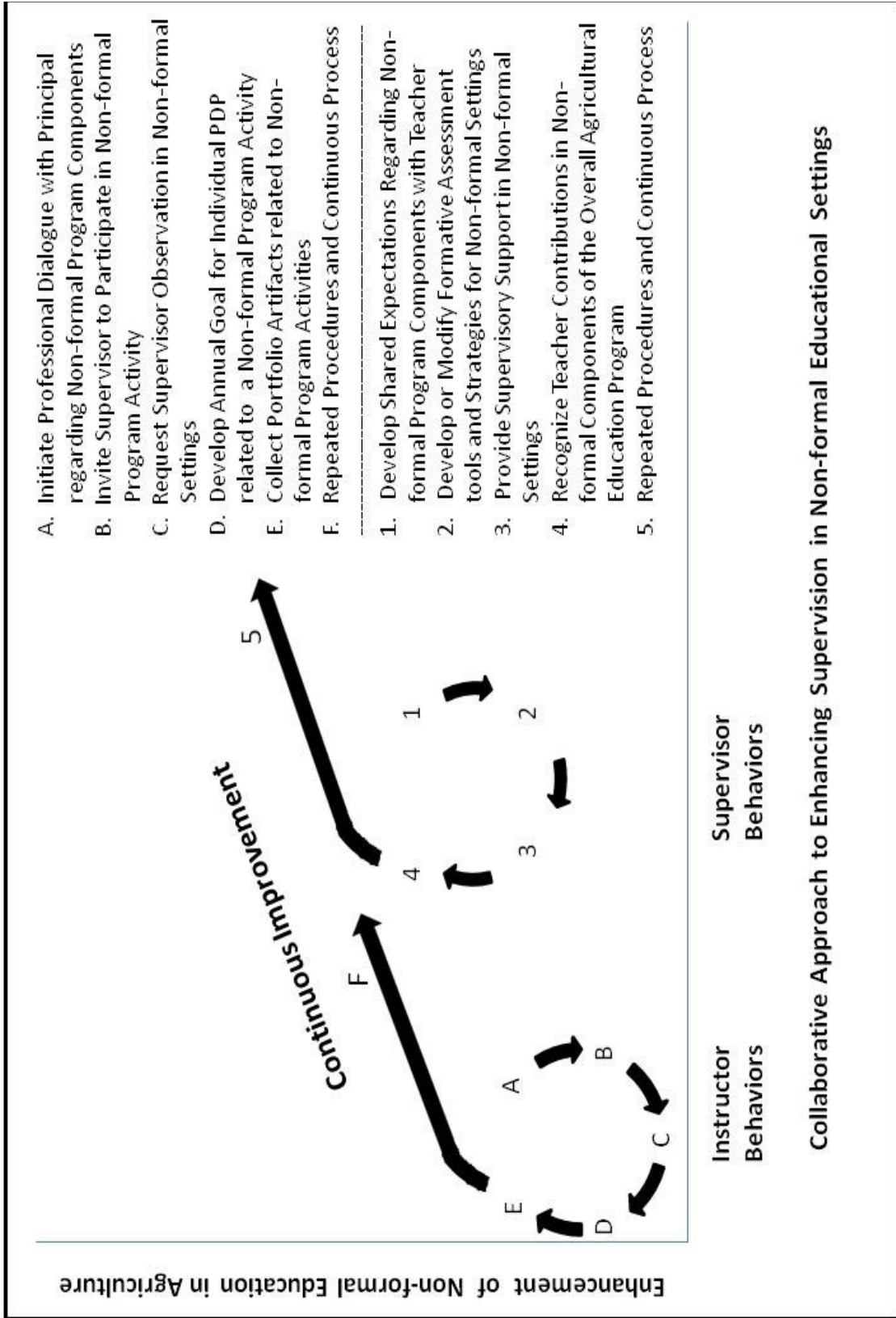


Figure 5.1. A framework for enhancing instructional supervision in non-formal educational settings of agricultural education

The teacher-initiated activities result in five specific outcome behaviors from the supervisor (Table 5.2) that will contribute to the framework for enhancing instructional supervision in the non-formal educational settings of an agricultural education program. These five behaviors include: 1) develop shared expectations with the agricultural education teacher regarding instruction in the non-formal components of the agricultural education program, 2) develop or modify formative assessment tools and strategies to improve instruction in the non-formal components of the agricultural education program, 3) provide supervisory support for the teacher in improving the non-formal components of the agricultural education program, 4) recognize the contributions of the teacher regarding their work in the non-formal components of the agricultural education program through formative and summative assessments, 5) repeat the previous four procedures in a continuous process that leads towards continuous improvement of the supervisory process.

Table 5.2

A Framework for Enhancing Instructional Supervision in Non-Formal Educational Settings of Agricultural Education — The Supervisor's Role

What Instructional Supervisors Can Do

- 1) Develop shared expectations with agricultural education teacher regarding instruction in the non-formal components of the agricultural education program.
 - 2) Develop or modify formative assessment tools and strategies to improve instruction in the non-formal components of the agricultural education program.
 - 3) Provide supervisory support for the teacher in improving the non-formal components of the agricultural education program.
 - 4) Recognize contributions of the teacher regarding their work in the non-formal components of the agricultural education program through formative and summative assessments.
 - 5) Repeat the previous four procedures in a continuous process that leads towards continuous improvement of the supervisory process.
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What the Agricultural Education Teacher Can Do

Today's instructional supervision literature is overflowing with different models and ideas on how to best provide tools to improve instruction in our schools. The vast majority of the current instructional supervision models include the use of supervisor and teacher collaboration (Danielson & McGreal, 2000; Darling-Hammond & Goodwin, 1993; Glickman et al., 2004). The framework for enhancing instructional supervision in non-formal educational settings (The Framework) in agricultural education has its foundation in the collaborative supervision framework. Agricultural education teachers in the present study indicated that instructional supervision should be used in all teachable moments, should ultimately help the learner, and is considered more art than science. They also identified several practices implemented by their instructional supervisors as important for them to exhibit within supervision of the non-formal components of their agricultural education program. Unfortunately, most agricultural education teachers perceived that the 28 identified practices were experienced infrequently.

Instructional supervision practices that are perceived as important by agricultural education teachers can be experienced through the implementation of the framework, however it is through the initiative of the teacher that gives the framework its power. The agricultural education teacher begins the process with the goal of improving student learning within the agricultural education program. It is assumed that the teacher possesses the understanding that the non-formal components of the program can help provide additional educational contexts beyond the traditional classroom setting to meet the goal of whole student learning. The agricultural education teacher must next make a concerted effort to

engage the instructional supervisor in a deeper understanding of the non-formal components of the program.

The teacher begins the first stage of the framework by initiating dialogue with the instructional supervisor about the teaching and learning process as it relates to the non-formal educational settings of the program. Zepeda and Ponticelli (1998) identified professional dialogue as an important part of instructional ‘supervision at its best’ while Pajak (2000) considered dialogue an important part of reflective instructional supervision. Dialogue between the teacher and instructional supervisor should be done systematically (Martin, Nwouzu, & Gleason, 1985). Professional dialogue between an instructional supervisor and the teacher can set the stage for many other instructional supervision practices considered important by the respondents of this study. Dialogue about education in general can lead to the instructional supervisor showing interest and sharing philosophical viewpoints relevant to the non-formal components of the program (Blase & Blase, 2004). Agricultural education teachers who believe strongly in these components of the overall agricultural education program understand the impact they can make upon their instructional supervisors. When the collaborative pair engage in positive professional dialogue, teachers will in turn develop a positive self-perception that can positively and automatically impact their own attitudes and behaviors related to supervision.

Once a professional dialogue has been established, the next step for the agricultural education teacher in the framework is to invite the instructional supervisor to participate in one or more of the activities that take place within the non-formal educational settings of the agricultural education program. This shifts the instructional supervisor from the passive discussion phase to the active experiential phase of gaining firsthand knowledge of the non-

formal components of the program. Blase and Blase (2004) professed that instructional supervisors should maintain a routine presence in educational settings by conducting walkthroughs and attending special events; primarily for the purpose of gaining a deeper understanding of the students and the teacher. High school principals will many times observe an extra-curricular athletic practice as part of the supervision of a coach, but how often have they participated in an SAE or FFA activity for that same purpose? Participating in non-formal educational activities within the agricultural education program will play a large role in helping the instructional supervisor gain insight and understanding of the students, the teacher, and the overall agricultural education program.

Examples of non-formal activities from which agricultural education instructors might choose to invite an administrator are numerous. Many high school principals have attended an annual FFA banquet to help support and recognize the achievements of the agricultural education student members of the leadership and personal growth component of the agricultural education program. However, it is less likely that high school principals have been invited to a monthly FFA chapter meeting or a bi-weekly officer team meeting. Additionally, many high school principals have helped judge a FFA Career Development Event (CDE), but they may not have been invited to attend and share their expertise in training an individual participant or team in an FFA CDE. Doing so would help the instructional supervisor gain a deeper understanding of the teaching and learning process that takes place in the non-formal leadership component of the agricultural education program.

When considering the importance of the non-formal, experiential learning component of the agricultural education program—Supervised Agricultural Experience (SAE)—there are many potential activities that the instructional supervisor could attend with the teacher as

well. The first and most obvious activity would be to invite the instructional supervisor to attend an SAE visitation. Hilton (1981) reported that ninety percent of superintendents in Iowa had never attended an SAE visitation, but that many would be interested. Rush and Foster (1984) suggested that administrators and agricultural education teachers work together to evaluate SAE visitation and the number of visits per year. Accompanying the agricultural education teacher on an SAE visitation would help the instructional supervisor get to know the student and teacher better, while at the same time help him/her to gain a deeper understanding of the teaching and learning process that takes place during this non-formal component of the agricultural education program. Additionally, instructional supervisors could also be invited to assist in reviewing SAE recordbooks, judging proficiency awards, or attending SAE parent meetings or other orientation sessions provided by the teacher in this important non-formal educative component of the agricultural education program.

Other educational activities utilized by agricultural education teachers in formal educational settings contain components of non-formal educational instruction. Kleis et al. (1973) stated that non-formal educational activities are usually conducted outside of the regular school setting or are implemented when traditional educational components are adapted for individual students. Field trips, field days, or other community educational activities provide rich learning activities for students; and when organized for non-formal teaching and learning activities to take place, would make excellent opportunities to invite an instructional supervisor. Instructional supervisors who attend well-planned, non-formal educational activities should become more interested in continuing a professional dialogue about the experience, which should deepen the understanding of the teacher's role in that component of the agricultural education program. Additionally, agricultural education

teachers who experience a supervisor's participation in and dialogue about their own work in non-formal educational settings will continue to positively change their perceptions related instructional supervision.

The third step for the agricultural education instructor in the framework is to request the instructional supervisor to observe a non-formal educational activity conducted in the agricultural education program for the purpose of formative assessment. This request should fit within the instructional supervision policy that has been established by the local school district. Utilizing a collaborative supervision technique as recommended by Ebmeier and Nicklaus, (1999), Sullivan and Glanz (2000), Thobega and Miller (2003), or a nondirective approach as described by Glickman et al. (2004), the teacher shares with the instructional supervisor ideas for areas where he/she wants to improve in the implementation of instructional strategies for the improvement of student learning.

Many of the instructional supervisory practices considered important by the agricultural education teachers who participated in this study relate directly to the supervisory process and fit within the framework of several supervisory models. Clinical supervision has been one of the most commonly utilized methods of supervision used with teachers (Cogan, 1973; Glickman, 2002; Goldhammer, 1969; Goldhammer et al., 1993). The process follows five stages: 1) a pre-observation conference with the teacher; 2) classroom observation; 3) supervisor's analysis and interpretation of the data collected in the observation, and planning for the post-observation conference with the teacher; 4) the post-observation conference; and 5) the supervisor's analysis of the post-observation conference (Goldhammer, 1969). The literature regarding the clinical supervision model discusses its use in traditional classroom settings; however, its' protocol is general enough that it could easily

be used as a supervisory structure in non-formal educational settings. Since agricultural education programs utilize teaching and learning techniques in non-formal educational settings beyond the traditional, formal classroom, the “classroom” observation component of clinical supervision could be completed by the instructional supervisor in any educational setting.

Clinical supervision in non-formal educative settings provides a rich context for cognitive coaching. Costa and Garmston (2002) indicated that cognitive coaching is a model for supervision and personal growth that enhances the manner in which teachers think and solve problems. Sharing of data by the instructional supervisor regarding an educational observation in a non-formal setting provides instructional supervisors with the opportunity to exhibit several of the practices deemed important by the respondents of this study.

Agricultural education teachers want their supervisors to observe them in a variety of settings. Additionally, they want their instructional supervisor to use a variety of observational techniques to collect meaningful data to be used in providing the teacher with descriptive and constructive feedback so as to increase awareness of their practice in non-formal educational settings. Furthermore, agricultural education teachers want instructional supervisors to encourage them to try new teaching strategies; give suggestions to improve teaching, and model different strategies that can be used with students in the non-formal educational settings of the agricultural education program. By completing the third step in the framework, instructional supervisors and agricultural education teachers will increase their professional dialogue about the non-formal components of the program. Data collection and sharing by the supervisor will provide additional opportunities for developing new strategies for enhancing student learning. The instructional supervisor will develop an even deeper

understanding of the non-formal components of the agricultural education program. This increased interest and understanding by the instructional supervisor will continue to positively impact the perception of the teacher involved in the process.

The fourth step in the framework is for the agricultural education teacher to develop an annual goal for the individual professional development plan related to a non-formal component of the agricultural education program. Danielson and McGreal (2000) identified seven areas in which individual professional development plan goals can be developed. These areas include: 1) refining and improving current practices, 2) acquisition of new skills or knowledge, 3) redesigning or restructuring learning activities, 4) deepening content knowledge, 5) integration of curriculum across content areas, 6) development of activities to increase student engagement, and 7) designing activities to better assess what students know or are able to do.

Once an area for development of a goal has been selected, Danielson (2008) designated several items to consider when developing an action plan for the implementation of the individual professional development plan. The goal should come from the teacher's self-assessment of his/her professional practice. Advisory committee program recommendations may also serve as a springboard for possible areas for improvement within the non-formal areas of the program. Individual professional development plans should be developed with input from the instructional supervisor in light of any school district or building goals of emphasis. The teacher should then draw connections between the goal and their teaching assignment, identify what successful completion of the goal would look like, and what would be used as evidence of success (Danielson, 2008). Next, specific activities with timelines should be developed and resources needed should be identified. An example

of an Individual Professional Development Plan for a goal in a non-formal setting of an agricultural education program is included in Figure 5.2 below.

Individual Professional Development Plan	
Teacher <u>Mrs. Brown</u>	School <u>ABCD High School</u>
Grade Level(s) <u>9 - 12</u>	Subject(s) <u>Agricultural Education</u> Date <u>9/1/20</u>
<p>Based on your self-assessment, your administrator's input, and any school or district initiatives, what goal have you identified? What is an area of knowledge or skill that you would like to strengthen? District Goal: To increase the percentage of students proficient on the cumulative Math score on the state standardized exam. IPDP Goal: Identify and develop specific math-content outcomes for students' Supervised Agricultural Education programs related to completion of an FFA Proficiency Award application.</p>	
<p>Describe the connection between this goal and your teaching assignment. As the Agricultural Education Teacher, I also serve as the FFA Advisor. All of my students participate in a Supervised Agricultural Experience program. Each student is required to complete an FFA Proficiency Award application based upon their SAE program utilizing their recordbooks. SAE and FFA activities help to enhance and integrate academic competencies in non-formal settings.</p>	
<p>What would success on this goal look like? How will you know when you have achieved it? What would count as evidence of success? Specific Math related concepts would be identified and learning objectives written for the activity described above. Students would be presented with the integrated content in an authentic setting (their recordbooks). Students would develop mastery of the related Math content through their personal activities and authentic assessment through the non-formal settings found in agricultural education.</p>	
<p>Describe the activities you will do to work toward your goal, and their time lines.</p>	
<p>Activity Identify financial analysis ratios on the proficiency award application. Crosswalk the content with state and national standards. Develop student learning outcomes regarding Math integration within Proficiency Award applications. Assess and record student progress in authentic, non-formal setting.</p>	<p>Time Line September 20____ October 20____ November 20____ December 20____</p>
<p>What resources will you need to better achieve your goal? Copies of local, state and national math standards and benchmarks.</p>	

Figure 5.2. Sample individual professional development plan using a non-formal educational activity

Individual professional development plans are used to guide the teacher in the continuous improvement process while at the same time provide the instructional supervisor with data to facilitate a professional dialogue regarding the teacher's professional improvement.

The fifth step in the framework is for the agricultural education teacher to collect artifacts and develop in-depth professional reflections from non-formal educational activities that meet one or more of the required teacher educational development standards utilized by the local school district. Teaching portfolios used for formative assessment are a set of

artifacts that document the teacher's learning in relation to a set of educational standards (Painter, 2001). When artifacts are selected correctly, a portfolio should be considered legitimate for use in teacher assessment (van der Schaaf & Stokking, 2008). By including artifacts from the non-formal components of the agricultural education program in a professional teaching portfolio; the teacher provides additional data that can be used by the instructional supervisor to help develop a better understanding of the teacher's overall practice (Sullivan & Glanz, 2000).

Several different artifacts can be used to demonstrate understanding or mastery of educational teaching standards. When considering Danielson's four domains for effective teaching (Chapter 2, Table 2.2), each domain provides numerous opportunities for selecting meaningful artifacts. In Domain 3: Instruction, teachers must demonstrate their ability to engage students in learning (3c). Students learn in numerous ways in agricultural education, especially in its non-formal educational settings. Students who may not be engaged in a classroom presentation on balance sheet analysis can become quite interested and engaged when putting together a loan application to expand their personal SAE project. A copy of the student's individual balance sheet from their SAE recordbook and a written reflection by the agricultural education teacher provide meaningful data about the ability of a teacher to engage students in the non-formal components of the program.

Additionally, FFA Career Development Events (CDE) are excellent examples of authentic assessments that can be used by agricultural education instructors. These assessments may be a direct measurement of classroom learning, or of an enrichment activity experienced by a student with a special interest area. Students with an interest in agricultural communications may participate in an FFA CDE where they develop a press release from a

mock press conference. Including a copy of the student's work along with a reflection by the agricultural education instructor indicate more deeply for the instructional supervisor the ability of the teacher to authentically assess the writing ability of the students. This step in the framework not only continues to increase the knowledge and understanding of the supervisor regarding the non-formal components of the program, but provides meaningful educational data points that can be used by the teacher to improve his/her own professional practice.

Agricultural education teachers who implement the five instructor activities as addressed in the framework will form collaborative partnerships with their instructional supervisors that will have a positive impact on improving instruction in the non-formal components of the agricultural education program.

What the Instructional Supervisor Can Do

The primary function of the instructional supervisor in formative, instructional supervision is to assist and support the professional growth of teachers regarding the improvement of teaching and student learning (Glickman et al., 2004). Agricultural education teachers who participated in the present study perceived that several instructional supervisory practices were important to them for improving their instructional practice, yet most of the practices were perceived as being exhibited infrequently by their instructional supervisor. Instructional supervisors who experience the five activities initiated by agricultural education teachers implementing the framework will respond with four outcomes related to the instructional supervisory process. These four outcomes are perceived by the teachers in the present study as important as well as missing in the instructional supervision process.

Instructional supervisors who are invited to participate in professional dialogue and attend non-formal educational activities that support student learning in the agricultural education program learn much about the program. As these discussions progress, instructional supervisors begin to develop expectations regarding the use of non-formal educational activities. These expectations lead to increased interest in determining the educational value of the activities used by agricultural education teachers in the non-formal components of the program.

When agricultural education teachers invite instructional supervisors to utilize formative assessment strategies within non-formal educational settings, additional interest is developed and numerous instructional supervision practices will be exuded by the supervisor. Instructional supervisors will begin to understand the importance of observing agricultural education teachers in all settings where they exhibit the opportunity to help students learn. Instructional supervisors will increase their understanding by working with agricultural education teachers in developing goals for their individual professional development plan in addition to reviewing artifacts and other portfolio entries that demonstrate how the teacher utilizes non-formal educational activities to help develop a whole student approach to learning. This collaborative interaction will cause the instructional supervisor to support quality educational efforts in all non-formal educational areas of the program. Agricultural education teachers will then be recognized for their contributions through formative and summative assessments of their professional practice.

Operationalizing the Framework

For the framework to be implemented by agricultural education teachers and their supervisors, professional development and ongoing training must take place. Beginning

teachers would benefit from the implementation of this model through a formalized mentoring and induction program. Experienced teachers should be paired with young or beginning teachers and trained to utilize and provide support for the framework. Numerous opportunities for professional development through the State or National Association of Agricultural Educators exist. Training should be developed and implemented through The Council for Agricultural Education. Additionally, training for administrators could be implemented through the National Association of Secondary Principals to enhance members' knowledge of supervision in non-formal settings. Funding opportunities should be explored to implement training and professional development of the framework.

Summary

The purpose of the framework to improve instructional supervision in non-formal educational settings (The Framework) is to provide a professional development tool for agricultural education instructors and their instructional supervisors. Agricultural education teachers and instructional supervisors can collaborate to improve instruction in the non-formal components of the agricultural education program by implementing the framework. Through the use of this framework, agricultural education teachers will receive instructional supervision practices that they feel are important, but perceive as not receiving frequently from their instructional supervisors; thereby positively changing their perception of the instructional supervision process. Since perception can automatically influence behavior (Ferguson & Bargh, 2004); this improved perception of supervision should create positive attitudes and behaviors from the agricultural education teacher regarding instructional supervision in the non-formal components of the agricultural education program. Agricultural education teachers will then implement behaviors that are more conducive to

positive and effective collaborative supervisory processes. Through this collaborative use of the framework by agricultural education instructors and their instructional supervisors, not only will the supervisory relationship become enhanced, but the quality of non-formal educational activities will continue to be enhanced, which will positively impact the entire agricultural education program.

Much has been learned through the implementation of this study. Therefore, several items should be considered in replicating this or similar studies. A strong effort should be made to obtain a national listing of agricultural education teachers so as to obtain a more comprehensive cross section of respondents. Thirty-three states were not represented in the current study. A partnership with National FFA or NAAE could provide this opportunity.

Additionally, several items could be enhanced to improve the instrument. For each of the beliefs and selected supervisory practice statements, two dropdown boxes were positioned to the right of the statement on the instrument (Appendix B). This limitation of Survey MonkeyTM made the instrument somewhat cumbersome. It would be more aesthetically pleasing and less awkward to position the statement between an Importance and Frequency column with check boxes or radio buttons to select from. Having the need to use a dropdown menu for each item doubled the amount of mouse clicks required to complete the questionnaire.

To better establish reliability of the individual items on the questionnaire, a test-retest methodology might be appropriate. Additionally, the timing of implementing the study needs to be considered. The study was not implemented on its original timeline, in fact, it was sent approximately one month later than initially planned due to delays from the Institutional Review Board. Great care must be taken to initiate and follow-up with studies of this type at

times that are conducive to agricultural education teachers. Several of the contacts and follow-ups to this study took place immediately preceding or during the National FFA Convention—an extremely busy time for agricultural education teachers.

CHAPTER VI. SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Summary

Introduction

Federal and state regulations have placed agricultural education teachers and the administrators that supervise them under additional scrutiny with higher expectations to be more accountable for student achievement. Statewide professional teaching standards integrate statewide evaluation programs with a goal of increasing student achievement. Initiatives from these directives require a great deal of time and effort by the agricultural education teacher and the instructional supervisor (Williams et al., 2010). Agricultural education teachers teach students within a three-pronged instructional delivery system which provides educational opportunities beyond the formal classroom setting (Phipps et al., 2008). Supervised Agricultural Experience along with FFA leadership and personal development activities help agricultural education teachers provide rich learning contexts that facilitate learning beyond the traditional classroom setting.

Secondary school principals use a variety of supervisory models in their work with agricultural education teachers. These supervisors exhibit (or fail to exhibit) various instructional supervisory practices when working with teachers. However, Blase and Blase (1999) contended that only scant descriptions of these practices have been generated. Zepeda and Ponticelli (1998) espoused, "Far more research is needed from many contexts examining teachers' perceptions on supervision" (p. 71). Additionally, they contended that not only should additional study be done in the area of how supervision is done in schools, the theoretical perspectives of teachers and educational supervisors should also be considered.

Purpose and Objectives

This study was developed to identify the beliefs agricultural education teachers have regarding instructional supervision in general; the importance of the instructional supervisory practices that should be used; and the frequency in which agricultural education teachers experience them in the non-formal educational settings of agricultural education. The baseline data drawn from these perceptions could assist agricultural educators and their supervisors in enhancing teaching and learning in the non-formal components of agricultural education.

Ferguson and Bargh's (2004) theory regarding how social perceptions can influence behavior served as the theoretical framework for this study.

The target population for this study consisted of high school agriculture teachers in the United States who were identified in available, electronic state agricultural education instructor directories as of September 28th, 2010. The states were stratified by the size of the state FFA membership (National FFA Organization, 2010). A disproportional stratified random sampling technique was used to determine the number of respondents to sample from each available state (Ary, Jacobs, & Sorenson, 2010). A random selection of participants was drawn. A total of 278 agricultural education teachers from 17 states responded from the original 670 potential respondents for a 41.5 percent response rate. Forty-four respondents provided incomplete data and were removed leaving 234 usable responses.

Research Design

Utilizing a cross-sectional survey design, this study was implemented through an internet-based instrument. Survey items were developed from a thorough review of the literature regarding instructional supervisory practices by those who are responsible for the

evaluation of teachers, primarily high school principals, in several settings (Blase & Blase, 2004; Marquit, 1968; Pajak, 1990; Thobega & Miller, 2003; Zepeda & Ponticelli, 1998). The expert panel-validated instrument included 10 general belief concept statements and 28 selected practices regarding instructional supervision. Respondents identified the importance and perceived frequency in which each practice was implemented within the non-formal components of the local agricultural education program. Internal consistency of the instrument was determined by calculating Cronbach's alpha which yielded $\alpha=.955$. Data in this study were analyzed using the Predictive Analytics SoftWare (PASW 18.0) Statistics Package.

Major Findings

The average respondent was male (70.6%), 40.62 years old, held a Bachelor's degree (58.4%), and had 14.86 years of teaching experience. One-way analysis of variance *ANOVA* and t-tests were calculated to determine statistically significant differences between mean scores of agricultural education teachers in the three components of the instrument: general beliefs regarding instructional supervision, the importance of selected instructional supervision practices used in non-formal educational settings, and the perceived frequency in which the selected instructional supervision practices were experienced in non-formal educational settings of the respondents' agricultural education program. Agricultural education teachers exhibited a high level of agreement that instructional supervision: *should be used in all teachable moments, is participatory development of the teaching and learning process, is conducted ultimately to help the learner, and is more art than science.* Agricultural education teachers indicated five specific instructional supervision practices in non-formal educational settings as very important: *understands my role as a teacher,*

supports and facilitates my work, provides me with resources and time to improve my educational practice, instills confidence in me about the work I do, and observes me in a variety of educational settings. When considering each of the 28 selected practices, agricultural education teachers perceived receiving fourteen practices infrequently (sometimes) within non-formal educational settings of their agricultural education program. The four practices that received the highest ratings included: *supports and facilitates my work, gives me praise when appropriate, is available for discussion and providing feedback about my teaching, and understands my role as a teacher.* Furthermore, a framework for enhancing instructional supervision in non-formal educational settings was developed based upon a review of the literature, the researchers' experience, and the findings of this study.

Seven major findings were identified as a result of this study:

1. The general beliefs and perceptions of agricultural education teachers toward instructional supervision did not vary significantly by age, highest degree attained, or state in which they were currently teaching.
2. Female agricultural education teachers embrace the importance of instructional supervision more than male agricultural education teachers.
3. More experienced teachers perceived experiencing selected instructional supervision practices in non-formal settings more frequently than less experienced teachers.
4. Agricultural education teachers strongly believe that instructional supervision should be used in all teachable moments.
5. Collaborative instructional supervision is preferred by agricultural education teachers.
6. Agricultural education teachers believe the primary purpose of instructional supervision is to increase student learning.

7. Agricultural education teachers want principals to collaborate with them in the formative assessment process.

Conclusions

The following conclusions have been drawn from the findings of this study.

1. There appears to be limited supervision of instruction in non-formal educational settings in agriculture.
2. Instructional supervision in non-formal educational settings appears to be supported by some agricultural educators even though rarely practiced.
3. Agricultural educators view what they experience in instructional supervision is not exactly what they would like to experience from their instructional supervisor.
4. Agricultural educators have strong views regarding selected instructional supervision principles.
5. Agriculture teachers may perceive that principals do not believe instructional supervision of agricultural education in non-formal settings is a critical element that demands direct instructional supervisory input even though these activities (SAE and FFA) are supported as part of the program.
6. Agriculture teachers appear to not be requesting their instructional supervisor to provide input about their (teachers) non-formal educational processes in implementing SAE and FFA activities.
7. Based on the operational definition of supervision used in this study, no instructional supervision models appear to exist that provide guidance for supervision of instruction in non-formal educational settings.

Recommendations

Recommendations for Action

Based upon the findings and conclusions of this study, the following recommendations were made:

1. Perceptions of agricultural education teachers regarding supervision of instruction in non-formal settings should be identified and made known to teachers and supervisors through self-assessment and teacher-initiated professional dialogue.
2. Agricultural education teachers need to reinvigorate SAE and FFA within the total agricultural education program. Agricultural education teachers should develop strategies, activities, and learning outcomes for the non-formal components of their agricultural education program since SAE and FFA are considered integral to the overall program. These strategies, activities, and learning outcomes should be shared with instructional supervisors and included as part of the instructional supervision process.
3. The National Association of Agricultural Educators and state associations of agricultural educators should develop mentoring programs to include content relevant to the instructional supervision process in formal and non-formal settings.

Experienced teachers should serve as mentors for beginning and younger agricultural education teachers.
4. The proposed framework for enhancing instructional supervision in non-formal educational settings should be implemented by agricultural education teachers and their instructional supervisors.

Recommendations for Further Research

The following areas have been developed as potential research topics as a result of this study.

1. This study should be replicated in the remaining 33 states and/or at the regional level to validate the results of this study.
2. This study should be replicated with other career and technical education teachers in their non-formal educational settings to determine if there are similarities with the respondents to this study.
3. A follow-up experimental study should be implemented that compares instructor satisfaction regarding instructional supervision in non-formal educational settings by those who have had professional training in the framework and those who have not been trained.
4. The study should be replicated with non-career and technical education teachers in other curricular areas that utilize non-formal education settings in their overall educational program to determine similarities and differences with the agricultural education teachers in this study.
5. Principals should be surveyed to determine their general beliefs regarding supervision, their perceived importance of selected instructional supervisory practices, as well as their perceived frequency in which they deliver those practices in the non-formal settings of agricultural education.

Implications and Significance for Agricultural Education

The purpose of this study was to determine agriculture teachers' perceptions regarding selected instructional supervisory practices perceived to be used by instructional supervisors in supervising the performance of agriculture teachers in non-formal educational settings. Findings from this study were based on data collected from a disproportionate random sample of agricultural education teachers in available, online state electronic directories; therefore should only be generalized to the states represented in the sampling frame. However, implications to agricultural education instructors in states of similar makeup to those who participated in this study may be considered with care.

These findings have implications for teacher educators that can be used in teacher preparation programs. Pre-service teachers are required to complete numerous hours of field experience throughout their preparation programs. Faculty members who teach methods courses or supervise field experiences for pre-service agricultural education students should introduce the collaborative supervision process to their students. Each field experience should include a mock supervision experience with the cooperating teacher. These experiences should include appropriate supervision of the non-formal components of the agricultural education program. Teacher education candidates who receive instructional supervision from numerous cooperating teachers and program supervisors will have the opportunity to experience several supervisory styles before they enter their first teaching position; while at the same time receiving basic skills in professional dialogue and collaborative supervision that can be used to enhance student learning within the entire agricultural education program.

There are also implications for planning national and state-level professional development programs for agricultural education teachers through the use of the proposed framework. The framework should be used in formalized state and national mentoring and induction programs for agricultural education teachers. Many states do not implement mentoring and induction programs for their agricultural education teachers. For those that do implement these programs, most of them are informal. A supervision component should be developed to train agricultural education teachers in professional dialogue and the importance of instructional supervision in all facets of the agricultural education program. Beginning teachers who struggle with seemingly non-supportive administrators would benefit from a formalized relationship with a veteran teacher who has experienced varying supervisory styles and practices implemented by instructional supervisors. The framework to enhance instructional supervision in non-formal educational settings should be implemented.

The National Quality Program Standards for Secondary Agricultural Education (National Council for Agricultural Education, 2006) includes two standards that directly relate to the findings of this study. Standard 2: Experiential Learning states “[e]ducation is enhanced through active participation by all students in a year-round experiential learning program” (p. 25) and Standard 3: Leadership Development states “[a]ll students participate in year-round intra-curricular agricultural student organization programs and activities” (p. 30). Training for all agricultural education teachers in the framework can help them to enhance the quality of these two primary non-formal components of the program by using the standards as a springboard for professional dialogue and the collaborative instructional supervision process.

High school principals who supervise agricultural education teachers should find this study useful as well. By understanding the practices that are important yet perceived as not experienced by agricultural education teachers, principals can focus their efforts on specific practices that can improve agricultural education teachers' perceptions of the instructional supervision process in non-formal settings. High school principals want to realize higher levels of student achievement in their schools. By expanding their instructional supervision and evaluation process to include all components of the agricultural education program, high school principals can impact student learning beyond the traditional classroom setting while at the same time, demonstrate support of agricultural education directly to the teachers and students by their presence.

Furthermore, the findings of this study could be used to develop future studies relevant to the instructional supervision relationship between agricultural education teachers and their instructional supervisors. Further work in this area could lead to greater communication linkages between the instructional supervisor and those who they supervise.

Finally and most importantly, this study fills a void in the literature in relation to the study of instructional supervision. Few recent studies have considered the instructional supervision relationship between the agricultural education instructor and the instructional supervisor. No studies have been identified by the researchers that consider this relationship through the lens of non-formal instructional settings in agricultural education. Agricultural education is at a crossroads. Fundamental changes in the way agricultural education teachers implement SAE and FFA must be made. Numerous articles have been written about the importance of experiential learning theory in agricultural education. There is great concern about the future of SAE in agricultural education programs ringing throughout the

profession. We can no longer afford to talk the talk without walking the walk. SAE and FFA must be implemented in the manner in which they were initially conceptualized as experience in agriculture. Instructional supervisors can help agricultural education teachers improve all aspects of agricultural education program—if they are considered partners in the process.

Agricultural education teachers have the power to shape the collaborative instructional supervision process through the attitudes and behaviors exhibited with their instructional supervisors. Agricultural education teachers can increase the visibility of high quality, student-centered, non-formal educational activities by collaboratively prioritizing them within the instructional supervision process. Then the high school principal, the superintendent, and the local school board will consider SAE and FFA integral and imperative to the success of an agricultural education program. Ultimately, the beliefs and perceptions of these administrators will determine their behavior when it is time to make financial or programmatic decisions about the local agricultural education program.

APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Researc
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-7267

Date: 9/14/2010
To: Thomas H Paulsen
217 Curtiss Hall
CC: Dr. Robert Martin
201 Curtiss Hall
From: Office for Responsible Research
Title: Supervisory Practices in Nonformal Settings as Perceived by Agricultural Education Teachers: A National Study
IRB Num: 10-338
Submission Type: New
Exemption Date: 9/13/2010

The project referenced above has undergone review by the Institutional Review Board (IRB) and has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b). The IRB determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**
- **You must carry out the research as proposed in the IRB application**, including obtaining and documenting informed consent if you have stated in your application that you will do so or if required by the IRB.
- **Any modification of this research should be submitted to the IRB on a Continuing Review and/or Modification form, prior to making any changes**, to determine if the project still meets the federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

Please be sure to use **only the approved study materials** in your research, including the **recruitment materials and informed consent documents that have the IRB approval stamp**.

Please note that you must submit all research involving human participants for review by the IRB. **Only the IRB may make the determination of exemption**, even if you conduct a study in the future that is exactly like this study.

APPENDIX B. APPROVED QUESTIONNAIRE

Supervision in Agricultural Education

You are participating in a national study exploring perceptions of agricultural education instructors regarding instructional supervisory practices performed by your immediate supervisor in the non-formal settings of your agricultural education program.

Agricultural educators are supervised by high school principals, technical school directors, or others designated by the school district in which they are employed. The next ten questions are designed to determine your beliefs related to instructional supervision in general.

Perceptions Regarding Instructional Supervision

Please indicate your level of agreement with each of the following statements on the following scale: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, or 5 – Strongly Agree.

1. Please indicate your level of agreement with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Instructional supervision is more art than science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is merely for evaluation of performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is participatory development of the teaching and learning process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is conducted ultimately to help the learner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is mainly for professional development purposes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is best done in formal classroom settings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision should be used in all teachable moment situations where teachers and learners interact.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is best conducted in a structured, teacher-centered situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is all about the teacher including what he/she does or does not do in the learning situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional supervision is basically an administrative tool used by principals and superintendents or their designees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Supervision in Agricultural Education

Perceptions of Selected Instructional Supervisory Behaviors Utilized in Supervising Agricultural Educators' Performance in Non-formal Educational Settings

Non-formal educational settings in agricultural education vary greatly but are typically considered those which take place outside of the traditional (or formal) classroom or laboratory setting. Specifically, these would include Supervised Agricultural Experiences (SAE), FFA, or any other teachable moments with students.

The next section of the survey indicates several specific instructional supervisory behaviors that may be demonstrated by supervisors of agricultural education instructors. For each behavior, indicate the level of importance of the behavior to the supervision of agricultural education instructors in non-formal settings and the extent to which your supervisor demonstrates this behavior in the supervision of the non-formal component(s) of the agricultural educators' practice.

Supervision in Agricultural Education

1. In column A please indicate the level of importance of each of the following selected instructional supervisory behaviors which may be observed in non-formal settings using the following scale: 1 – Not Important, 2 – Somewhat Important, 3 – Moderately Important, 4 – Very Important, or 5 – Extremely Important.

In column B please indicate the extent to which you believe your supervisor demonstrates this behavior in the supervision of the non-formal component(s) of your educational practice using the following scale: 1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Often, or 5 – Always.

My supervisor ...

	Column A: Level of Importance	Column B: Extent Practice Experienced in Non-formal Settings
shows interest in my professional growth in non-formal settings.	<input type="text"/>	<input type="text"/>
works with me to improve my teaching in non-formal settings.	<input type="text"/>	<input type="text"/>
elicits my opinion about how to improve my teaching in non-formal settings.	<input type="text"/>	<input type="text"/>
makes suggestions to improve my teaching in non-formal settings.	<input type="text"/>	<input type="text"/>
models questioning strategies to use in non-formal settings.	<input type="text"/>	<input type="text"/>
helps me increase awareness of my own teaching practice in non-formal settings.	<input type="text"/>	<input type="text"/>
is supportive of me trying new teaching strategies in the non-formal settings of my program.	<input type="text"/>	<input type="text"/>
is available for discussion and providing feedback about my teaching in non-formal settings.	<input type="text"/>	<input type="text"/>
gives me descriptive, constructive criticism regarding my teaching in non-formal settings.	<input type="text"/>	<input type="text"/>
gives me praise when appropriate in working with students in non-formal settings.	<input type="text"/>	<input type="text"/>
describes teaching behaviors he/she observes me demonstrate in non-formal settings.	<input type="text"/>	<input type="text"/>
provides feedback regarding how I relate with students in non-formal settings.	<input type="text"/>	<input type="text"/>
gives me feedback and suggestions in working with students in non-formal settings.	<input type="text"/>	<input type="text"/>
supports and facilitates my work in non-formal settings.	<input type="text"/>	<input type="text"/>
provides me with resources and time to improve my educational practice in non-formal settings.	<input type="text"/>	<input type="text"/>
supports me when I practice a new teaching skill in non-formal settings.	<input type="text"/>	<input type="text"/>
attends FFA meetings for the purpose of supervision.	<input type="text"/>	<input type="text"/>

Supervision in Agricultural Education		
attends SAE visitations for the purpose of supervision.	<input type="checkbox"/>	<input type="checkbox"/>
makes his/her expectations about my teaching in the non-formal setting known.	<input type="checkbox"/>	<input type="checkbox"/>
recognizes my individual teaching efforts in the non-formal settings of agricultural education	<input type="checkbox"/>	<input type="checkbox"/>
records, analyzes and shares observation data from observing me in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
delineates between instructional supervision for improvement and evaluation.	<input type="checkbox"/>	<input type="checkbox"/>
encourages me to try new teaching strategies in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
gives me specific feedback on my performance in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
uses a variety of observational techniques with me in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
engages in dialogue with me about my teaching in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
openly discusses with me philosophical views of teaching and learning in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
understands my role as a teacher in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
instills confidence in me about the work I do in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
visits me informally in non-formal settings.	<input type="checkbox"/>	<input type="checkbox"/>
manages by walking around; visiting me in the non-formal settings where I teach.	<input type="checkbox"/>	<input type="checkbox"/>
visits with me outside of regular school hours.	<input type="checkbox"/>	<input type="checkbox"/>
observes me in a variety of educational settings.	<input type="checkbox"/>	<input type="checkbox"/>

Supervision in Agricultural Education

Demographic Information

1. What is your gender?

Male

Female

2. What is your age?

3. What is your level of education?

BA/BS

MA/MS

PhD/EdD

4. How many years have you taught agricultural education?

5. In what state are you currently teaching?

Supervision in Agricultural Education

Thank You

APPENDIX C. PILOT QUESTIONNAIRE INTRODUCTION, INVITATION, AND FOLLOW-UP EMAILS

ISU IRB # 1	10-338
EXEMPT DATE:	13 September 2010

Introductory Email Message for Pilot Study

To: Agricultural Education Teacher

From: Thomas H. Paulsen
Graduate Student

Dr. Robert A. Martin
Professor

Iowa State University
Ames, Iowa 50011

You are being contacted because you have been selected to participate in a pilot study regarding supervision of instruction in agricultural education. The purpose of this national study is to determine perceptions of agricultural education instructors regarding instructional supervisory practices performed by their immediate supervisors in the non-formal settings of agricultural education.

We will be sending you a link from SurveyMonkey™ asking you to participate in this pilot survey. Your perceptions regarding the instructional supervisory practices performed by your immediate supervisor in non-formal settings will provide baseline data for the development of supervision of agricultural education in the United States. Additionally, your feedback regarding the survey instrument will be important to the researchers in making improvements prior to releasing the survey.

Please watch for an email from SurveyMonkey™ in the coming days.

Non-formal educational settings in agricultural education vary greatly but are typically considered those which take place outside of the traditional (or formal) classroom or laboratory setting. Specifically, these would include Supervised Agricultural Experiences (SAE), FFA, or any other teachable moment that occurs with students.

This research is very important to the agricultural education profession because the findings will be used to develop a framework for the supervision of teacher performance in non-formal settings. You are being contacted because your state has been selected from a national sample.

In this study, we are solely interested in group data not individual data so confidentiality will be ensured. No personal or contact information will be collected. Once you have responded to the survey, all contact information will be automatically removed from the responses to ensure complete anonymity. The data collected in this study will be used in partial fulfillment of the doctoral degree requirement in agricultural education at Iowa State University. The published results from this dissertation will serve the agricultural education profession by providing information that could lead to improvements, adjustments or changes in the supervision of agricultural education in non-formal settings.

Participation in this study is voluntary and you may withdraw from this study at anytime. If you have questions or concerns, please contact either me (tpaulsen@iastate.edu or (515) 294-0047) or Dr. Robert Martin (drmartin@iastate.edu or (515) 294-0896). If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator,

ISU IRB # 1	10-338
EXEMPT DATE:	13 September 2010

(515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Thank you for your cooperation.

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.

<http://www.surveymonkey.com/.....>

Thank you in advance and we look forward to receiving your pilot survey responses and feedback.

Invitation to Participate in Pilot Study Email Message

To: Agriculture Education Teacher

From: Thomas H. Paulsen
Graduate Student

Dr. Robert Martin
Professor

Iowa State University
Ames, Iowa 50011

We are conducting a national study regarding supervision of instruction in agricultural education. You have been selected to participate in a national pilot study. The purpose of this study is to determine the perceptions of agricultural education instructors regarding instructional supervisory practices performed by their immediate supervisors in the non-formal settings of agricultural education.

Non-formal educational settings in agricultural education vary greatly but are typically considered those which take place outside of the traditional (or formal) classroom or laboratory setting. Specifically, these would include Supervised Agricultural Experiences (SAE), FFA, or any other teachable moment that occurs with students.

This survey is very important to the agricultural education profession because the findings will be used to develop a framework for the supervision of teacher performance in non-formal settings. You are being contacted because your state has been selected from a national sample.

Thank you for your willingness to participate in this national pilot study regarding your perceptions of instructional supervisory practices of your immediate supervisor in non-formal settings in agricultural education. Your feedback will be essential in improving the survey prior to its release. Your knowledge and experiences are needed by taking 10 minutes of your time to answer the following questions.

Here is a link to the survey:
<http://www.surveymonkey.com/.....>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

In this study, we are solely interested in group data not individual data so confidentiality will be ensured. No personal or contact information will be collected. Once you have responded to the survey, all contact information will be automatically removed from the responses to ensure complete anonymity. The data collected in this study will be used in partial fulfillment of the doctoral degree requirement in agricultural education at Iowa State University. The published results from this dissertation will serve the agricultural education profession by providing information that could lead to improvements, adjustments or changes in the supervision of agricultural education in non-formal settings.

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Participation in this study is voluntary and you may withdraw from this study at anytime. If you have questions regarding this study, please feel free to contact, Thomas H. Paulsen at tpaulsen@iastate.edu . If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Thank you for your cooperation and we look forward to receiving your feedback.

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
<http://www.surveymonkey.com/.....>

Follow-up Pilot Email Message

To: Agriculture Education Teacher

From: Thomas H. Paulsen
Graduate Student

Dr. Robert A. Martin
Professor

Iowa State University
Ames, Iowa 50011

Earlier this week, you should have received an invitation to participate in a pilot study exploring perceptions of agricultural education instructors regarding instructional supervisory practices performed by their immediate supervisors in the non-formal settings of agricultural education. You are being contacted because your state has been selected from a national sample

Thank you for your willingness to participate in this national pilot study survey regarding your perceptions of instructional supervisory practices of your immediate supervisor in non-formal settings in agricultural education. Your feedback will be critical in improving the survey prior to its release. Your knowledge and experience is needed by taking 10 minutes of your time to answer the following questions.

Here is a link to the survey:
<http://www.surveymonkey.com/.....>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

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You may withdraw from this study at anytime. If you have questions regarding this study, please feel free to contact, Thomas H. Paulsen at tpaulsen@iastate.edu. If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Thank you for your cooperation.

APPENDIX D. QUESTIONNAIRE INTRODUCTION, INVITATION, AND FOLLOW-UP EMAILS

ISU IRB # 1	10-338
EXEMPT DATE:	13 September 2010

Introductory Email for the Study

To: Agricultural Education Teacher

From: Thomas H. Paulsen
Graduate Student

Dr. Robert A. Martin
Professor

Iowa State University
Ames, Iowa 50011

In a few days, we will be beginning a national study regarding supervision in agricultural education. The purpose of this national study is to determine perceptions of agricultural education instructors regarding instructional supervisory practices performed by their immediate supervisors in the non-formal settings of agricultural education.

You are being contacted because your state has been selected from a random national sample.

We will be sending you a link from SurveyMonkey™ asking you to participate in this national survey. Your perceptions regarding the instructional supervisory practices performed by your immediate supervisor in non-formal settings will provide baseline data for the development of supervision of agricultural education in the United States.

Please watch for an email from SurveyMonkey™ in the coming days.

Non-formal educational settings in agricultural education vary greatly but are typically considered those which take place outside of the traditional (or formal) classroom or laboratory setting. Specifically, these would include Supervised Agricultural Experiences (SAE), FFA, or any other teachable moments that occur with students.

This survey is very important to the agricultural education profession because the findings will be used to develop a framework for the supervision of teacher performance in non-formal settings. You are being contacted because your state has been selected from a national sample.

In this study, we are solely interested in group data not individual data so confidentiality will be ensured. No personal or contact information will be collected. Once you have responded to the survey, all contact information will be automatically removed from the responses to ensure complete anonymity. The data collected in this study will be used in partial fulfillment of the doctoral degree requirement in agricultural education at Iowa State University. The published results from this dissertation will serve the agricultural education profession by providing information that could lead to improvements, adjustments or changes in the supervision of agricultural education in non-formal settings.

Participation in this study is voluntary and you may withdraw from this study at anytime. If you have questions or concerns, please contact either me (tpaulsen@iastate.edu or (515) 294-0047) or Dr. Robert Martin (drmartin@iastate.edu or (515) 294-0896). If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515)294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

ISU IRB # 1	10-338
EXEMPT DATE:	13 September 2010

Thank you for your cooperation.

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
<http://www.surveymonkey.com/.....>

Thank you in advance and we look forward to receiving your survey responses.

Invitation to Participate in the Survey Email Message

To: Agriculture Education Teacher

From: Thomas H. Paulsen
Graduate Student

Dr. Robert Martin
Professor

Iowa State University
Ames, Iowa 50011

We are conducting a national study regarding supervision in agricultural education. The purpose of this study is to determine the perceptions of agricultural education instructors regarding instructional supervisory practices performed by their immediate supervisors in the non-formal settings of agricultural education.

Non-formal educational settings in agricultural education vary greatly but are typically considered those which take place outside of the traditional (or formal) classroom or laboratory setting. Specifically, these would include Supervised Agricultural Experiences (SAE), FFA, or any other teachable moment that occurs with students.

This survey is very important to the agricultural education profession because the findings will be used to develop a framework for the supervision of teacher performance in non-formal settings. You are being contacted because your state has been selected from a national sample.

Thank you for your willingness to participate in this national study regarding your perceptions of instructional supervisory practices of your immediate supervisor in non-formal settings in agricultural education. Your knowledge and experiences are needed by taking 20 minutes of your time to answer the following questions.

Here is a link to the survey:
<http://www.surveymonkey.com/.....>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

In this study, we are solely interested in group data not individual data so confidentiality will be ensured. No personal or contact information will be collected. Once you have responded to the survey, all contact information will be automatically removed from the responses to ensure complete anonymity. The data collected in this study will be used in partial fulfillment of the doctoral degree requirement in agricultural education at Iowa State University. The published results from this dissertation will serve the agricultural education profession by providing information that could lead to improvements, adjustments or changes in the supervision of agricultural education in non-formal settings.

Participation in this study is voluntary and you may withdraw from this study at anytime. If you have questions regarding this study, please feel free to contact, Thomas H. Paulsen at tpaulsen@iastate.edu . If you have any questions about the rights of research subjects or

ISU IRB # 1	10-338
EXEMPT DATE:	13 September 2010

research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu,
or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames,
Iowa 50011.

Thank you for your cooperation.

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you will be automatically removed from our mailing list.
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Follow-up Email Message

To: Agriculture Education Teacher

From: Thomas H. Paulsen
Graduate Student

Dr. Robert A. Martin
Professor

Iowa State University
Ames, Iowa 50011

Earlier this week, you should have received an invitation to participate in a national study exploring perceptions of agricultural education instructors regarding instructional supervisory practices performed by their immediate supervisors in the non-formal settings of agricultural education. You are being contacted because your state has been selected from a national sample.

Thank you for your willingness to participate in this national study survey regarding your perceptions of instructional supervisory practices of your immediate supervisor in non-formal settings in agricultural education. Your knowledge and experience is needed by taking 20 minutes of your time to answer the following questions.

Here is a link to the survey:

<http://www.surveymonkey.com/.....>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

In this study, we are solely interested in group data not individual data so confidentiality will be ensured. No personal or contact information will be collected. Once you have responded to the survey, all contact information will be automatically removed from the responses to ensure complete anonymity. The data collected in this study will be used in partial fulfillment of the doctoral degree requirement in agricultural education at Iowa State University. The published results from this dissertation will serve the agricultural education profession by providing information that could lead to improvements, adjustments or changes in the supervision of agricultural education in non-formal settings.

You may withdraw from this study at anytime. If you have questions regarding this study, please feel free to contact, Thomas H. Paulsen at tpaulsen@iastate.edu . If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Thank you for your cooperation.

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