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Illinois Secondary Agriculture Teachers' Perception of Critical Development of Undergraduate Experiences

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ILLINOIS SECONDARY AGRICULTURE TEACHERS' PERCEPTION OF CRITICAL DEVELOPMENTAL UNDERGRADUATE EXPERIENCES

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There will be a number of teachers retiring in the next few years from Illinois high school agriculture programs which will impact over 28,657 students who are active in agriculture classes or FFA (Dittmar & Allen, 2012). In the spring of 2013, the state of Illinois began to prepare for 30-50 expected openings for agricultural education teachers at the secondary level (Facilitating Coordination of Agricultural Education, 2013). A report released in the summer of 2013 by the Facilitating Coordination of Agriculture Education (FCAE) stated that in 2013 there were only ten graduate candidates in Agriculture Education who graduated and were certified to begin teaching. In 2014 that number is projected to be only thirteen. The purpose of this study is to provide the leadership of Illinois Agricultural Education with an understanding of what practicing teachers feel were the most important experiences in their pre-service teacher education program that ensured they were prepared for the classroom. A two-part electronic survey was available to all of the current Illinois secondary agriculture

teachers in the state. After analysis of the data, it was concluded that only 15 of the 49 experiences that Illinois secondary agriculture teachers experience are not important to becoming an agriculture teacher. This information can be used to streamline the teacher education programs and eliminate experiences that are perceived to be less relevant to preparing teachers. This study will assist with ongoing efforts dealing with recruitment and retention.

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Thank you God for Your will, Your promise of better days, and Your amazing grace. (Jeremiah 29:11)

A.J.G.

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CHAPTER I

INTRODUCTION

State of Illinois

There will be a number of teachers retiring in the next few years from Illinois high school agriculture programs which will impact over 28,657 students who are active in agriculture classes or FFA (Dittmar & Allen, 2012). In the spring of 2013, the state of Illinois began to prepare for 30-50 expected openings for agricultural education teachers at the secondary level (Facilitating Coordination of Agricultural Education, 2013). A report released in the summer of 2013 by the Facilitating Coordination of Agriculture Education (FCAE) stated that in 2013 there were only ten graduate candidates in Agriculture Education who graduated and were certified to begin teaching. In 2014 that number is projected to be only thirteen. In the nation, the challenge of preparing secondary agriculture teachers for the classroom continues to be an issue. In fact, the United States Department of Education (2012) estimated that 28 states faced a shortage of agriculture teachers in the 2012-2013 academic year. Illinois has managed to fill nearly all the open positions over the last ten years, but only by relying heavily on provisional certifications and candidates recruited from other states (FCAE, 2012). While this solution prevents programs from closing due to lack of teachers, some

questions are raised as to the quality of those individuals and the challenges faced getting out-of-state certificates and licenses recognized by the State of Illinois (R. Steffen, personal communication, March 28. 2013).

The question then becomes, what are the challenges that must be overcome to not only fill those openings with qualified teachers, but to have an adequate supply of trained individuals so that school administration can choose the "best and brightest" from the pool, elevating the quality of programs across the state? Answering the question of why Illinois consistently faces challenges of getting an adequate pool of qualified teachers for agriculture education requires a broad look at the factors that contribute to both the supply and the demand of the issue.

National and State

On a national level, researchers have attempted to identify reasons for recruitment and retention issues. Some of these studies looked at early field experiences and professional development (Fullan, 1991; Drage, 2010; Waters, 2012; ISBE 2013; Wolf, 2010; Smalley & Retallick 2012) and job satisfaction (Kantrovich 2010; Keigher 2010; Rice 2011; Walker 2004; Murray 2011; Baker 2009), but limited research was found that focuses on the impacts and perceptions of pre-service classroom experiences or extra-curricular experiences during undergraduate studies.

There is limited research that is directed towards secondary Illinois agriculture teachers and those pre-service experiences and activities that have impacted them. There are reports published that have touched on Illinois agriculture teacher general

facts, statistics and demographics (Ditmar, 2012; Hasse – Wittler, 2012; Baker, 2009). By examining the perceptions of practicing teachers of the value of pre-student teaching experiences, we can identify those activities that they feel help them be more effective, improving retention of practicing teachers and student teachers. Likewise, by eliminating unnecessary, ineffective, or experiences deemed "busy work", can be eliminated making pre-service experiences more "real world" which should help better prepare students for the profession and increase retention.

This study will help identify experiences and activities current agriculture teachers in Illinois experienced pre-service that they feel aided them in being agriculture teachers.

This study will benefit the Illinois State Board of Education (ISBE), Facilitating Coordination in Agriculture Education (FCAE), Illinois Association of Vocational Agriculture Teachers (IAVAT), and the Illinois FFA Association. The programs at Illinois Agriculture Education Universities and Illinois Association of Community College Agriculture Instructors will also benefit as those institutions prepare future agriculture teachers.

Research Question

The research question this study will examine is what college experiences or pre-service activities are perceived by secondary agriculture teachers in Illinois to be most important in preparing students to become Illinois agriculture teachers. It will also look at how perceptions vary based on selected demographic variables. The independent

variable will be demographic variables such as experience, location, school size, gender, program size, the college or university attended and other related variables. The dependent variables will be teachers' perceptions of importance of the pre-service activities.

Purpose/Objectives

The primary purpose of this study was to identify the undergraduate pre-service events or activities that are important to current Illinois secondary agriculture teachers. Specifically the study sought to explore the following objectives:

1) To determine what practicing agriculture teachers' feel are the most important undergraduate experiences or college activities that will help prepare future candidates to teach agriculture.
2) Examine differences in agriculture teachers' opinions of those experiences based on selected demographic factors.

Hypotheses

Survey analysis and procedures were used to test the following hypotheses:

H_0: There is no difference in agriculture teachers' opinions of the importance of those experiences based on if they were an early or late responder.

H_1: There is a difference in agriculture teachers' opinions of the importance of those experiences based on if they were an early or late responder.

H_0: There is no difference in agriculture teachers' opinions of the importance of those experiences based on their gender.

H_1: There is a difference in agriculture teachers' opinions of the importance of those experiences based on their gender.

H_0: There is no difference in agriculture teachers' opinions of the importance of those experiences based on age.

H_1: There is a difference in agriculture teachers' opinions of the importance of those experiences based on age.

H_0: There is no difference in the agriculture teachers' opinions of the importance of those experiences based on number of students taught per year.

H_1: There is a difference in the agriculture teachers' opinions of the importance of those experiences occur based on number of students taught per year.

H_0: There is no difference in the agriculture teachers' opinions of the importance of those experiences based on the number of years they have been teaching.

H_1: There is a difference in the agriculture teachers' opinions of the importance of those experiences based on the number of years they have been teaching.

H_0: There is no difference in the agriculture teachers' opinions of the importance of those experiences based on the university they obtained their bachelor's degree from.

H_1: There is a difference in the agriculture teachers' opinions of the importance of those experiences based on the university they obtained their bachelor's degree from.

Definition of Important Terms

CTE: Career and Technical Education

ECE: Early Clinical Experience - a pre-services experience that happens early in the educational process of the student soon to be an agriculture teacher

FCAE: Facilitating Coordination of Agriculture Education

IAVAT: Illinois Association of Vocational Agriculture Teachers

ISBE: Illinois State Board of Education

LCE: Late Clinical Experience- a pre-services experience that happens late in the educational process of the student soon to be an agriculture teacher

NCLB: No Child Left Behind

Pre-Service experience or activity: experience or activity performed before graduation as a student and before beginning in their own classroom.

SAE: Supervised Agriculture Experience

ST: Student Teaching - a pre-services experience that takes place in the classroom, with the soon to be agriculture education teacher teaching the students; future teaching applying education in the real setting

Teacher Certificate or Licensure: a certificate of credentials earned by a student through a learning process and test declaring they are able to be a teacher.

CHAPTER II

REVIEW OF LITERATURE

This literature review is comprised of four parts. First, information about Illinois Agriculture Teachers and recruitment and retention information is examined. This is followed by an examination of studies of clinical experiences, professional development and job satisfaction and their relationship to teacher recruitment and retention.

Illinois Secondary Agriculture Teachers

The 2012 Agriculture Education Report is an annual report on the status of Agricultural Education in Illinois that is released by the Illinois State Board of Education (ISBE), and produced jointly by the ISBE, Facilitating Coordination in Agriculture Education (FCAE), Illinois Agriculture In the Classroom (AITC), Illinois Association of Vocational Agriculture Teachers (IAVAT) and Illinois FFA Association, Illinois Agriculture Education Universities and Illinois Association of Community College Agriculture Instructors. According to the 2012 report, there were a total of 393 Secondary Agriculture Teachers in the state of Illinois, an increase of 4% from 2011. The 2012 Agriculture Education report also states that the average Illinois agriculture teacher has 12 years of experience, with 16% having over 25 years of experience and 27% having 5 years or less. The report goes on to state that in Illinois, 15% of Agriculture teachers are

teaching on a provisional certificate and 39% have continued their education to obtain a master's degree. The average contract of an Illinois Agriculture Teacher is ten months, with a salary of $53,727.00 (Dittmar, 2012).

It is the Illinois agriculture community colleges and universities that offer a high quality learning environment, equipped with advanced technologies in classrooms, farms, various laboratories, and greenhouses to the future secondary agriculture educators. The 2012 Agriculture Education report also addresses the higher education institutions in Illinois, stating that community colleges employ over 188 faculty members, and at the University level employs over 275 faculty members in agriculture education. The agriculture community colleges and universities in Illinois had a combined enrollment in 2011-2012 of 6,207 students in an agriculture course. These institutions also offer student organizations that provide communication, dedication, teamwork, provide résumé building experiences, and networking within the professional agriculture industry (Hasse-Wittler 2012).

The *Vision for Illinois Agriculture: ISU Student Survey* was conducted by Illinois State University College of Business in 2009 to determine what factors help a student decided to choose Agriculture to study in college, which will ultimately lead to a career in the Agriculture industry. The survey asked students currently enrolled that year in agriculture classes, four questions regarding their decision to go into the agriculture field of study. When asked what influenced them to major in agriculture the following had moderate to very high influence on them: 45% responded that having an agriculture

class, 42% responded having a SAE (Supervised Agriculture Experience) and 38% responded being involved in FFA activities and events (Anderson 2009). When asked who were the people who influenced them to choose agriculture as a major, 50% responded that an agriculture teacher had a moderate to very high influence on their decision (Anderson 2009). This is an excellent example of why it is important to focus on recruitment and retention of high quality agriculture education teachers. The secondary Illinois agriculture teacher has a significant impact on students' decisions to study agriculture at the college and university level and pursue a career in agriculture.

Clinical Experience

Smalley and Retallick (2012) conducted a survey about the early field (or clinical) experience (EFE or ECE) activities of an agriculture education teacher that benefit the future teachers the most. A field or clinical experience can happen at any point in the studying student's career: Early Clinical Experience, Late Clinical Experience or Student Teaching. These experiences give the student a chance to apply what they have learned in college to the real-life classroom and student setting. The most beneficial experiences found were having future secondary agriculture teachers, while still in their undergraduate studies, participate in more out of the classroom experiences such as: mentor current high school agriculture students, apply current knowledge learned in the classroom while observing students, interact with students, interact with administration, and assist teachers more often. Allowing a college student wanting to pursue a degree in secondary agriculture education to be exposed to these different

experiences will help the student make a more informed decision about their chosen career path before they begin in their own classroom (Smalley and Rettallick 2012).

Professional Development and Training

Professional development is the "sum of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement" (Fullan 1991). The difference between "professional development" and "meaningful professional development" is that in order for the professional development to have meaning it must be ongoing, diverse, and focused on improving a teacher's career and student's achievement. It is important to examine what teachers say is needed in early professional development experiences as an indicator of what factors need to be added to pre-service clinical experiences or what experiences need to be enhanced or strengthened (Drage. 2010).

In a study measuring the relationship between teacher self-efficacy (confidence) and professional development in agriculture education, student teachers indicated that new teacher candidates may be intimidated by experienced teachers and feel more open to being mentored by colleagues who had more recently gone through the same stages of the career (Wolf 2010).

In Illinois, agriculture education teachers fall into a category with five other educational areas under the College and Career Readiness (CCR) division of the Illinois State Board of Education. These areas are frequently known collectively as Career and Technical Education (CTE). Illinois is in the middle of a curriculum revitalization phase

where they are bringing the two divisions (CCR and CTE) together to aid with implementation of the Common Core State Standards (CCSS). CCSS is a fresh, new concept that Illinois, in addition to many other states, utilized to create a standard of achievement for students across the grade levels (Waters, 2012). CCR/CTE teachers must be able to teach students occupational skills, meet the needs of specific populations, integrate academic and occupational instruction, coordinate school-and-work based learning, manage work-based programs, and prepare students for both the workplace and postsecondary education (Illinois State Board of Education, 2013). In order for the teachers to meet these newly implemented standards more professional development sessions will be needed by the teacher, so the teacher efficacy remains strong.

The Career and Technical Improvement Act of 2006, also known as the new version of the Perkins Act, focuses on the professional development needs of the CTE teachers. This act is relevant to the agriculture teacher because it focuses on professional development that the teachers have stated is lacking in their profession. This Act includes six extensive purposes for professional development (Drage 2010). Four of the six are as follows: earning an advanced education degree, education-related professional development certification issued by Illinois institution of higher education, completing 12-semester hours of graduate course work, or earning continuing professional development units (Drage. 2010). Continuing professional development education units are varied, but not limited to, the following activities: school or

community partnerships, curriculum development or assessment activities, mentoring, or presenting at workshops and conferences. (Drage. 2010).

Since the No Child Left Behind (NCLB) legislation has been in place, it has presented new challenges for teachers and calls for more professional development and training to be available to current teachers. Though CTE is not specifically mentioned in the NCLB legislation, it is imperative that CTE teachers continue to incorporate the content areas into their teaching and professional development, to continue to achieve the mandate set by the NCLB (Drage 2010). Drage (2010) found in her research that teachers feel the need for professional development activities because they feel more training is needed in dealing with students with special needs and behavioral issues, keeping students motivated, lesson planning, designing a curriculum, unit planning, budget managing, dealing with school administration, various classroom needs and personal career needs. There are several factors that are keeping teachers from increasing professional development such as lack of time, financial issues and opportunities of professional development available to the teachers requesting these needs (Drage 2010).

These challenges of changes that current teachers are dealing with require an amount of professional development and training that is not being provided. The lack of these two things is leading to poor job satisfaction and are both contributing factors as to why teachers are leaving the profession.

Job Satisfaction

Job satisfaction is important in any industry, but in education, teacher retention is closely linked and has become a high priority issue. It is useful to review the reasons teachers feel satisfied or not satisfied with their job to identify issues in preparation that might increase the retention rate and help keep trained teachers in the classroom. If the factors that increase job satisfaction can be identified, then experiences in the eacher preparation program can be developed to retain teachers and lead to increased job satisfaction earlier in their careers.

According to Kantrovich (2010), in the field of Agriculture Education alone there has been over a 20% decline in the number of newly qualified agriculture educators produced and there are numerous agriculture positions nationwide that will go unfilled or filled with temporary teachers due to the lack of qualified teachers. Keigher (2010) stated that teacher retention has become a major issue, as research indicates that almost 25% of entering public school teachers leave the profession within the first three years. Keigher (2010) also found that with agriculture education teachers, the rural area teachers tend to leave the profession at a greater percentage compared to city and suburban teachers.

Factors that entice a teacher to stay satisfied with their career placement can range from personal satisfaction, motivation, student encounters, educational colleagues, administration, up to date technology, and laboratories. Factors that discourage teachers are the lack of personal or family time, increased stress levels, low

salaries, lack of administrative support, lack of technology, and student behavior (Rice 2011).

A study by Rice (2011) found that teachers stated a need for certain training to be provided to the teachers to aid in retention. A suggestion is an on-going series of workshops or conferences with colleagues that will provide teachers with extra communication through peer mentoring (Rice 2011). The study also found that it is important for the agriculture education department to be promoted positively and for all students to be encouraged to enroll in an agriculture class to increase class size (Rice 2011).

An older study by Walker(2004) *"Job Satisfaction and Retention of Secondary Agriculture Teachers"* found that some teachers were leaving the profession for other agriculture careers because they have difficulty with teaching agriculture mechanics, dealing with administration, time commitment, responsibilities they were not prepared for, and family issues. The study also showed that the teachers who stayed have dealt with the changes they experienced, worked through the struggles of the first years of teaching, and have found a routine that works for them and their families. Overtime, they became more satisfied with their agriculture education teaching position (Walker 2004). The study also suggested surveying novice teachers to help identify their professional development needs and wants, might help with retention if the lines of communication are kept open (Walker 2004).

The agriculture education career is more demanding than other teaching fields. Demands for the "hands on" classroom experience, more intense lesson planning, preparing students for FFA competitions and special events, overseeing Supervised Agriculture Experience (SAE) projects, raising money to fund the program and, in some schools, taking care of a greenhouse or field plots, means that agriculture teachers put in more hours and effort than other curriculum areas. A study in Georgia found that when compared to other teaching professions, the typical agriculture teacher works an average of 57 hours a week during a normal school year with an average of 39 days off for the summer, while still working more hours than a teacher of another subject (Murray 2011). The study also concluded that the teachers were working more hours than what was being shown in their salaries (Murray 2011). According to the study, that leaves an average of only 20-22 hours a week to be dedicated to family, which results in less time to carry-out all responsibilities in the home expected of them by the family (Murray 2011). These factors are just a few of the influences that play a role in secondary agriculture education job satisfaction.

In 2009, 11 teachers who left the profession in Illinois were asked to fill out an exit survey for a better understanding of why they were leaving the profession; the survey had a 91% response rate. The number of teachers leaving was down in 2009 from 2008 when 18 left the profession. The top three reasons the teachers left in 2009 were family/personal reason, other specifically identified as a long commute and limited administrative support. Of the teachers who left, eight were fully certified and two

were provisionally certified. All but two that left knew what they were doing for employment after leaving: two stayed in the field of education, two stayed in the agriculture industry, two were leaving the agriculture industry completely (Baker, 2009.). Constant teacher turnover hinders the learning of the students and creates academic achievement gaps. Retention of teachers is something that must truly be focused on.

A review of related literature clearly shows a variety of factors that influence teacher retention and recruitment. The literature provides an understanding of the key factors that increase job satisfaction and success among agriculture teachers. This guides the selection of activities important in designing a teacher preparation program that provides those key pre-service experiences that will provide the candidates a realistic exposure to the tasks they will be expected to fulfill. This in turn sets the stage for more positive experience during the early career and helps retain effective teachers. The lack of additional literature specifically related to examining the impact of pre-service experiences on teacher satisfaction and retention lead to this study.

CHAPTER III

METHODS AND PROCEDURES

The primary goal of this research is to identify what teachers perceive as the key experiences needed in the pre-service programs to adequately and realistically prepare them for the classroom.

Population and Sample

The population surveyed for this study was current secondary agriculture teachers in Illinois. There were 394 teachers in Illinois in 2013. The survey was to include all teachers at the Illinois Association of Vocational Agriculture Teachers (IAVAT) 2013 Summer Conference via iPad, and a follow up with those teachers not in attendance with an email request to complete the on-line electronic survey. The independent variable in this study is the university attended, the number of years teaching, and the experiences each teacher was exposed to as a student. The dependent variable was the current teachers' opinions.

Survey Instrument Development

Survey design method, according to Creswell (2009), will provide a quantitative description of trends, attitudes or opinions of a population by studying a sample of that population. Therefore, an electronic survey of teachers' perceptions and opinions was

deemed the most appropriate method of data collection. A survey was created using Select Surveys', a web-based survey tool available through the College of Arts and Sciences at Illinois State University. The survey instrument was developed by the researcher and checked for face validity by a group of faculty and graduate students. The survey instrument was developed by requesting the student teaching manual from each Illinois University that offered an agriculture education sequence in the 2012-2013 academic year. Each manual was analyzed to identify the pre-service experiences or activities that are unique to each university as well as those shared in common. Then a master list of pre-service experiences was compiled and used to create the survey administered to the agriculture teachers.

The survey consisted of two parts. The first part contained questions related to the demographics of the teacher: age, years teaching, school size, gender and where the teacher attended school. Categories were used for the responses to the demographic questions to encourage teacher to respond to all questions and maximize confidentiality.

The second part of the survey contained the opinion section; containing two paired questions for each item. The teacher's perception of the importance was solicited using the following Likert-type scale, 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree. Respondents were also given the option of Not Applicable (NA). There was no neutral response number because the teacher needed to either agree or disagree with the statement. The second portion of each question asked

each participant to indicate where in the program they think this activity BEST fits: early clinical experiences (ECE), late clinical experiences (ELE), or during student teaching (ST), ALL or Not Applicable (NA).

Initial data was collected at the Illinois Association of Vocational Agriculture Teacher conference that was held at Illinois State University June 18th – 20th, 2013 by an electronic questionnaire using an iPad linked via a wireless internet connection to the website where the survey resided. The teachers were addressed during a session to explain the importance and the goals of the research, what the research hoped to achieve and how valuable their participation was to this project.

The teachers who were not present or did not complete the survey at the conference were then sent an email on August 1st asking for participation via the internet. The email provided the same information shared with participants in the conference session, and a link to the survey.

Three reminder emails were sent out to at two week intervals to remind participants to complete the survey. The survey was closed on September 18th.

The data collected was then exported to Excel, and where necessary recoded and prepared for analysis. Using Microsoft Excel, each response was given the numeric value it had in the Likert-type scale and Not Applicable was given the value of zero. The data was then uploaded into IBM SPSS Statistics. This software is commonly used for statistical analysis within the social sciences. The Chi-Square test of independence was selected as the most appropriate test to analyze the data set.

CHAPTER IV

RESULTS

Once the survey was completed, the data were reviewed to ensure accuracy, formatted, and uploaded to the Statistical Package for the Social Sciences (SPSS) program. Initial review highlighted some areas where data needed to be recoded to ensure reliable data analysis. Using SPSS, the Cronbach Alpha, a tool used for assessing reliability, was used to insure that the content of the survey instrument was valid. All questions used for this survey were found to be at the excellent level of reliability (α=.934) (George, Darren 2012).

A total of 91 teachers responded to the survey. Several respondents chose not to answer one or more individual questions. Variations in the N observed in the following discussion are a result of these missing responses. Of those providing usable responses to the survey, 34% completed the survey at the IAVAT conference using the iPads and 66% completed the survey on-line accessed via the link provided in the email. Seven started the survey but did not provide data beyond the initial agreement to participate. These were discarded. This resulted in 84 usable surveys.

The 84 usable responses represent a response rate of 21%. Due to the low response rate, it was deemed important to examine the data for non-response bias.

Das (2009) quoted Huck to state that comparing early and late responders can be used to check for non-response bias. Non-response bias was analyzed by comparing the responses to both the demographic and opinion questions from early responders (using the iPads), to early responders (completing the on-line survey) and the late responders (completing the on-line survey). Differences were found in two of the five demographic variables, age and number of years teaching. Younger teachers were more likely to be in the early iPad responders and early responders group, suggesting that older teachers, and those who have been teaching longer, are more likely to be non-responders. This raises the concern of the potential for a non-response bias in the study.

To examine this more closely, we compared the responses of the early responders (iPad) with the early responders and late responders (via the emailed link) for the 49 opinion items. There were no differences for 46 of the 49. For only three items were significant differences found between the early and late responders. These were: the perceived importance of gathering community data that are valuable resources (field trips, guest speakers, location of historical sites, implement dealers, nurseries, fertilizer plants. etc.), the perceived importance of supervising and/or participating in a FFA Chapter Officer retreat, and the perceived importance of reviewing permanent files of 5 students as a pre-service activity (see Table 1). To address the issue of low n in the cells during the Chi-square analysis, the opinion data were also recoded. The categories of agree and strongly agree were combined in agree,

and disagree and strongly disagree was combined to create a single category of disagree. In the following sections, the result of the analysis was found.

Table 1

Late/Early Responders Analysis

Pre-Service Activity	df	Asymp. Sig (2sided)	Total	Demographic
Gather Community Data	2	.040	81	Late Responders
Supervise an FFA officer Retreat	2	.042	77	Early Responders
Review Permant Files of 5 Students	2	.028	76	Late Responders (2nd Group)

While differences were found, there appeared to be no definitive trend in the preferences. Late responders were more likely to agree with the importance of gathering community data, while early responders more likely to agree supervising and/or participating in a FFA chapter officer retreat, or reviewing the permanent files of 5 students in the class was important.

Therefore while we feel the sample adequately represents the population, the reader is cautioned that the potential for non-response bias exists and should use caution in interpreting the results.

Demographics

The 84 respondents were 63% male and 37% female. This closely mirrors the percentage of male (64%) and female (36%) teachers reported in the annual report on the professional characteristics of Illinois Agriculture Teachers (FCAE, 2013).

The demographic variable of age was recoded and the original categories were combined into three to increase the N in each category to increase the power of the statistical tests. When it was recoded it was found that for the variable age 50% were between the ages 22-35, 25% were between ages 36-50, and 25% were 51 or older. According to FCAE, Illinois teachers ages breakdown into 44% are 22-35, 31% are 36-50 and 28% are 51 years of age or older. Teachers were also asked how many years they had been teaching. Of the teachers responding, 50% had between 1-10 years of experience, 32% between 11-25 years and 18% between 26-35 years. This also aligns closely with data on Illinois teacher characteristics from the FCAE project, with 52%, 29% and 18% respectively. The number of students taught per school ranged from 29% being defined as very small (less than 100), 37% being defined as small (101-200), 25% being medium (201-500) and only 9% being large (500+). All four Illinois Universities with Ag Education Teacher preparation programs were represented: University of Illinois 25 teachers, Illinois State University 18 teachers, Southern Illinois University-Carbondale 17 teachers, Western Illinois University 14 teachers, NA (Out of State) 7 teachers, and Other (teaching on provisional certificate) 3 teachers.

Agriculture Teachers' Perceptions

The first objective of the study was needed to determine what practicing agriculture teachers' feel are the most important undergraduate experiences or college activities that will help prepare candidates to teach agriculture. The responses were analyzed using frequencies and percentages. The results of this analysis are compiled

below in table 2. The items in the table are ranked from those perceived as most important as a pre-service activity to the least important according to current Illinois secondary agriculture teachers. The most important pre-service events or activities all had a common theme of student and teacher engagement, such as teaching in a classroom, instructing a lab, attending various FFA activities at different levels or creating a lesson plan. When looking at the pre-service activities, engagement with community businesses and agency's was felt to be less important. Out of the 49 items asked, only one was rated by more than 50% of teachers as NOT being valuable. The majority of teachers agree that all identified pre-services activities are of importance for the student's preparation to becoming a teacher except one, being an active member in a PanHellenic organization (Table 2).

Table 2

Percentage of Agriculture Teachers' Responses of Important Pre-service Activities

Pre-service Activity List		Agree	Disagree	N/A
	n	%	%	%
Provide Classroom Instruction	83	100.0	0.0	0.0
Attend FFA Activities at the State, Section, District and State Levels	83	100.0	0.0	0.0
Create Lesson Plans	81	100.0	0.0	0.0
Organize a Lesson Plan for a Substitute Teacher	81	100.0	0.0	0.0
Teach Lessons of Classroom Content	80	100.0	0.0	0.0

Observe an Agriculture Teacher In The Process of Teaching 2 Lessons (Direct Instruction and Student Management)	81	98.8	0.0	1.2
Coach a Team or an Individual For Contest	81	98.8	1.2	0.0
Mock Job Interview with Instructor	84	97.6	2.4	0.0
Interview a Special Education Teacher	84	97.6	1.2	1.2
Instruct a Lab	83	97.6	2.4	0.0
Attend a Professional Organization Meeting	81	97.5	2.5	0.0
Attend IAVAT Summer Conference	81	96.3	3.7	0.0
Grade Student Record Books	80	96.3	2.5	1.3
Visit a Site of a Students SAE Project	83	95.2	3.6	1.2
Plan and Conduct a Major FFA Activity	81	95.1	4.9	0.0
Assist With a Recruitment Drive For FFA or Agriculture Courses	81	95.1	4.9	0.0
Observe Student Engagement With Other Students	81	95.1	4.9	0.0
Observe 1 or 2 Teachers From Another Subject Area	81	95.1	3.7	1.2
Interview the School Guidance Counselor	80	95.0	3.8	1.3
Conduct A Comprehensive Evaluation of the Agriculture Education Program You are Completing Your Field Experience	83	94.0	6.0	0.0
Observe Section SAE Projects at Section Fair, County Fair or State Fair	83	94.0	3.6	2.4
Hold a Mock Interview With a School Administrator	81	93.8	6.2	0.0

Participate in an Agriculture Department Registered Student Organization or Club	81	93.8	4.9	1.2
Reflect on the Agriculture Teacher You Are Shadowing With Others	81	93.8	6.2	0.0
Participate in an Ag Advisory Council and/or FFA Alumni meeting or event	81	93.8	4.9	1.2
Networking With All High School Faculty	83	92.8	7.2	0.0
Become an Active Member of a Professional Organization	81	92.6	4.9	2.5
Supervise 3 SAE Projects	80	90.0	8.8	1.3
Develop or Revise Your Educational Philosophy Statement as a Future Agriculture Educator	81	88.9	8.6	2.5
Gather Valuable Data From The Community (ex: field trips, guest speakers, implement dealers, historical sites,.etc.)	83	86.7	10.8	2.4
Counsel Students on Career Objectives	81	86.4	13.6	0.0
Interview the Chapter Officer Team	80	86.3	13.8	0.0
Plan and Conduct an Activity in Conjunction with an Academic Teacher Involving Integration of Agriculture Into Other Disciplines	81	85.2	14.8	0.0
Interview The Ag Advisory Council and/or FFA Alumni Chapter Leader	81	84.0	14.8	1.2
Supervise and/or Participate in a Chapter Officer Retreat	80	83.8	12.5	3.8
Observe an Another Agriculture Teacher With Less Than 3 Years Experience	80	82.5	17.5	0.0

Mock Job Interview With The Principal	84	82.1	16.7	1.2
Attend a School Board Meeting	81	81.5	18.5	0.0
Prepare a Bulletin Board	81	81.5	17.3	1.2
Read Professional Journals	80	81.3	17.5	1.3
Keep A Daily or Weekly Journal	80	77.5	21.3	1.3
Interview Students Who Are In Agriculture Education Course who are NOT in FFA	78	73.1	21.8	5.1
Write an Article For The Local Newspaper	81	71.6	23.5	4.9
Review 5 Permanent Files of Students in Your Classes	80	65.0	30.0	5.0
Attend an Extension Program	81	63.0	32.1	4.9
Observe an University Teacher Teaching	81	63.0	33.3	3.7
Conduct an Agri-Business Case Study or Visit	81	59.3	33.3	7.4
Visit a Regional Office of Education	80	58.8	38.8	2.5
Active Member in a PanHellenic Organization (AGR, CERES, FH, Sigma Alpha, etc.)	80	32.5	53.8	13.8

Differences in Teachers' Opinions

To address the second objective of the study, "examine differences in agriculture teachers' opinions of those experiences based on selected demographic factors", the Chi-Square test of independence was used. The Chi-square test is a statistical test of independence or association. Chi-square is used to study observed frequencies compared to the expected frequencies. As already mentioned, due to low frequencies in

some of the response categories it was necessary to combine data to provide larger numbers of responses in some cells, so a valid the chi-square test could be made.

Age

A chi-square test of independence was performed to examine the relationship between the age of the teacher and the perceived importance of the pre-service activities. Only three of the 49 items were found to be significantly different. The age groups 22-35 were more likely to agree that instructing a lab, participating in an RSO (registered student organization) and grading student SAE record books as important pre-service activities. The age group of 51 and older were least likely to find these activities' important. (Table 3) For the other 46 activities, there was no difference in opinion between the groups. The three items that were found to have a significant difference were examined to see if there was a trend. There was no clear pattern, therefore the null hypothesis was not rejected. Overall the perceptions of the teachers' were the same based on age.

Table 3

Activities Viewed to be Significantly Different by Age Group

Pre-Service Activity	N Total	X^2 Value	df	Asymp. Sig. (2-sided)
Instructing a Lab	83	6.456[a]	2	.040
Participate in a University RSO	80	6.263[a]	2	.044
Grading Student Record Books	79	6.053[a]	2	.048

Gender

The next chi-square test of independence was used to examine the relationship between the gender of the teacher and their perceptions of the activities. The importance of two activities were found to be viewed significantly different based on the gender of the teachers. Females were more likely to agree that preparing a bulletin board and observing a university teacher teaching to be a significant pre-service activity than compared to males. (Table 4) In the other 47 of the 49 activities, there was no difference, and no pattern obvious in the two that were significant. Therefore the null hypothesis was not rejected. Overall the perceptions of the teachers' were the same when viewed by gender.

Table 4

Activities Viewed to be Significantly Different by Gender Group

Pre-Service Activity	N Total	X^2 Value	df	Asymp. Sig. (2-sided)
Prepare a Bulletin Board	80	7.143[a]	1	.008
Observe an University Teacher Teaching	78	3.955[a]	1	.047

Number of Years Taught

The chi-square test of independence was also used to examine the relationship between the number of years the teacher has been in the classroom and the perceived importance of the activities. For only one of 49 activities, "becoming an active member in a PanHellenic organization", was a significant difference found. With teachers teaching ten years were less more likely to agree that activity was important. (Table 5)

In 48 of the 49 activities, there was no difference found. Therefore the null hypothesis was not rejected. Overall the perceptions of the teachers' were the same.

Table 5

Activities Viewed to be Significantly Different by Number of Years Taught

Pre-Service Activity	N Total	X^2 Value	df	Asymp. Sig. (2-sided)
Active member in a PanHellenic Organization	69	6.525[a]	2	.038

Number of Students Taught Per School Year

The chi-square test of independence was used to examine the relationship between the number of students taught per school year in the agriculture program and the teachers' opinions of the value of the activities. Out of the 49 activities, only three were found to be significantly different. Very small, small, and medium agriculture programs were more likely to agree that interviewing a special education resource teacher was an important pre-service activity and large school programs were less likely to agree. The small and very small agriculture programs were more likely to agree with the importance of visiting the SAE location of three students as an important pre-service activity compared to other program sizes. The medium agriculture programs were less likely to agree going to an SAE location of three students as important. The small agriculture programs were more likely to agree with grading SAE records books as an important pre-service activity and large agriculture programs were less likely to agree. (Table 6) In 46 of the 49 activities, there was no difference found. In this variable, we

see a slight trend. Smaller schools were likely to view some of those activities that require additional time from the teacher to conduct one-on-one contacts to be more important than large schools. This likely reflects the additional workload this represents for larger schools compared to smaller schools. However, not all of those types of activities were found to be more valuable by teachers at smaller schools. For example, interviewing guidance counselors and conducting a business visit were not significantly different. So while it suggests that a closer examination of this questions is warranted, overall, no strong and clear was found, therefore the null hypothesis was not rejected. Overall the perceptions of the teachers' were the same.

Table 6

Activities Viewed to be Significantly Different by Students Taught Per School Year

Pre-Service Activity	N Total	X^2 Value	df	Asymp. Sig. (2-sided)
Interview a Special Education Resource Teacher	83	10.990[a]	3	.012
Go to 3 Student's SAE Location	82	9.045[a]	3	.029
Grade Students SAE Books	79	8.080[a]	3	.044

University/College Attended

The final variable examined with a chi-square test of independence, was relationship between the university attended and the importance of the 49 items. Only three were found to be significant. The pre-service activities of interviewing students who are in agriculture classes but not in FFA as an activity, and the development of educational philosophy were more likely to have University of Illinois alumni agree these

were important activities. The development of education philosophy was least likely to be important to the alumni of Illinois State University. Attend a school board meeting was found to be an important pre-service activity by Western Illinois University graduates. The category of "none", teachers teaching on what is known as a provisional, were less likely to agree with the importance of attending a school board meeting. In 46 of the 49 activities, there was no difference found and there was no pattern between the three that were found to be significantly different, therefore the null hypothesis was not rejected. Overall the perceptions of the teachers' were the same. (Table 7)

Table 7

Activities Viewed to be Significantly Different by University/College Attended

Pre-Service Activity	N Total	X^2 Value	df	Asymp. Sig. (2-sided)
Interview Students in Ag Classes not FFA	74	12.659[a]	5	.027
Development of Student Philosophy	79	12.112[a]	5	.033
Attend a School Board Meeting	81	13.013[a]	5	.023

In summary, for the second objective, few differences were found between the groups in the demographic variables. In each case, the demographic groups held different perceptions of the importance in only one, two or three of the 49 variables. Further examination of the detected differences, found no definitive pattern that would suggest that the differences seen were the result of that variable other than the variable of school size as discussed above. This suggests that overall, there is little difference between the perceptions of the different demographic groups.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the data gathered in this study, a number of conclusions can be drawn which should be of interest to the various partners in Illinois Agricultural Education. The results should benefit the Illinois State Board of Education (ISBE), Illinois Universities with Agricultural Teacher Education programs, Facilitating Coordination in Agriculture Education (FCAE), Illinois Association of Vocational Agriculture Teachers (IAVAT), and the Illinois FFA Association. It provides feedback from practicing teachers of what they feel are the most important experiences for candidates to participate in during teacher preparation.

When the data were examined based on the demographic characteristics, few differences were detected. When those differences were examined, with one exception, there were no trends found in the data.

Overall, Illinois secondary agriculture education teachers perceive all of the activities except for one (48 of 49 identified pre-service experiences) that are currently part of the teacher education program to be important to becoming an agriculture teacher. Only one pre-service activity was rated as not important. The experience that

teachers identified as not important was to be an active member in a PanHellenic Organization. Overall, while a range in the percentage of teachers rating the 48 other items as important existed, most pre-service activities were rated as very important by a big percentage of teachers, with only 8 items rated very important by less than 75% of teachers.

When the strength of the responses was examined, a pattern emerged of those pre-service experiences that focus on direct one-on-one student contact, not just teaching in the classroom, but also engaging students in a variety of settings as rated higher. Other high rated activities that directly engage students are directed towards professional development or community involvement, not just all in the classroom instruction. These types of experience tend to provide more personal interaction and engagement with the students, teachers and professionals, providing a better learning experience.

Perhaps not surprising, the younger generation of teachers was more likely to use the iPad at the conference for the survey, while veteran teachers were more likely to wait and complete the survey on-line from a desktop computer via the emailed link. When comparing early and late responders, only three experiences were found to be significantly different. The late responders found it more important to gather community data and review permanent files of 5 students and the early responders found it important to supervise an FFA retreat. In the three items in which significant differences were found among the three groups, no definitive pattern was seen. With

only three differences found in early and late responders, it is appropriate to use the data as representative for Illinois teachers. However, as stated previously, caution should be used.

Younger teachers found it important to grade record books, instruct a lab and to be active in an RSO when an older teacher does not. The younger teacher may see the importance of the grading a record book activities and instructing a lab activities now they are instructing and engaging with the students in the classroom setting on a daily basis. They can see how these activities require adequate training to ensure they are completed effectively and correctly. The connection to the RSO may provide them a professional network to increase professional development in their careers. Also, the younger generation of teachers may have more recent memories of RSO activities and therefore, recent time spent in the RSO gives it higher value in this group. The connection to the RSO by the younger generation might also be the reason why teachers with 10 years or less experience find it important to be an active member in a PanHellenic Organization.

Female teachers found two of the more detailed experiences of preparing the bulletin board and observing a university teacher to be more important than males.

The smaller sized schools when compared to the others found it important to have more experiences that allow the future teachers to directly engage with the students on a one on one level, giving them individualized attention such as going to SAE locations and grading a student's SAE book. This could be due to the fact that in a

smaller school you have smaller student to teacher ratio so extra time can be taken to work with the student personally. Another possibility could be that in the smaller school a larger amount of time is dedicated to those activities, so they are considered to be more important. Larger schools did not find it important to interview a special education resource teacher. This could be because in larger schools, these types of situations have established protocols or an additional teacher is in the room or an aid. In a medium to very small schools it might be more dependent on the teacher to address these tasks.

Differences in the university attended accounted for three experiences that were significantly different. The differences in these activities based on the university attended could simply be a reflection of what each of those universities stresses as important pre-services events. Since state and national standards ensure that key activities are experienced by students to prepare them for the classroom, the few items that are found to be more important by graduates of one institution over another should be reviewed in greater detail to determine if it is an activity that should be experienced by all future secondary agriculture teachers at the other universities.

This small number of differences based on demographic variables suggests that while overall, teachers are in agreement on what is important, the possibility that differences based on demographics exist that may warrant further study.

Illinois Agriculture Education Universities and Illinois Association of Community College Agriculture Instructors and the agricultural education profession, will benefit

from these findings as they prepare future agriculture teachers, by understanding which pre-service experiences are considered most important. This information should be used to help guide program planning and the development of future activities for inclusion in Illinois Agriculture Teacher Education Programs. It is clear that practicing Agriculture Teachers feel that 48 of the 49 pre-services activities identified in this study are important and essential to becoming a well prepared agriculture teacher.

Recommendations

This research can be utilized to aid universities and those who oversee secondary agriculture education teacher preparation in Illinois. This research can be an aid in making effective decisions on the future of those programs and to assist in the development of appropriate teaching standards. The advisory committees of the Illinois agriculture teacher programs should meet regularly to compare programs and share ideas to ensure that the agriculture teachers are receiving the most beneficial training before entering the classroom. This research should also be done by other states or on a regional or national basis to see how the compare to Illinois to identify those traits that have national importance. Illinois agriculture teacher preparation programs should actively participate in state and national standards setting committees. By doing this it will ensure that Illinois programs are current and will become a part of the standards setting process. Further study of when each of these experiences should best be incorporated into the program should be undertaken, to ensure a strong and effective Agricultural Teacher Education Program in Illinois.

REFERENCES

Anderson, M. (2009) Illinois State University College of Business - Marketing Research Team. Vision for Illinois Agriculture Teachers Student Survey.

Aschenbrener, M., Terry, R., Torres, R., & Smith, A. (2007). Assessment of creativity and job satisfaction of second year agriculture education teachers (34th ed.) AAAE Research Conference.

Baker, A. J. (2009). Illinois agriculture teacher exit survey for the year 2009.

Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches SAGE.

Das, N. (2009). The influence of individual factors on web-based development education course success in two-year technical colleges. University of New Orleans). , 77-79.

Dittmar, D., & Allen, L. (2012). 2012 Illinois agriculture education report: Characteristics of Illinois agriculture education (pg 6-10). Illinois Agriculture Education.

Dortch, C. (2012). Career and technical education (CTE): A primer. (No. R425748).Congressional Research Service.

Drage, K. (2010). Professional development: Implications for Illinois career and technical education teachers. Journal of Career and Technical Education, 25(2), 24-37.

Facilitating Coordination in Agricultural Education (FCAE). (2012). "Illinois secondary agriculture teachers supply & demand". (No. 22).

Franklin, E. A., & Molina, Q., F. (2012). Teacher induction programs in agricultural education: Description of role of AAAE higher education teacher preparation programs. Journal of Agricultural Education, 53(1), 123-135.

Fullan, M., Stiegelbauer, S. M., & Fullan, M. (1991). The new meaning of educational change / michael G. fullan with suzanne stiegelbauer Toronto?] : Ontario

Institute for Studies in Education: New York, NY : Teachers College Press, Teachers College, Columbia University, c1991; 2nd ed.

George, D., & Mallery, P. (2012). IBM SPSS statistics 19 step by step: A guide and reference (12th ed.). Indianapolis, IN: Pearson.

Hasse-Wittler, P. S. D. (2012). 2012 Illinois agriculture education report: Postsecondary agricultural education: Getting to the core of collegiate opportunities (pg 20-21).

Illinois State Board of Education. (2013). Retrieved February 16, 2013, from http://www.isbe.state.il.us/career/

Kantrovich, A. J. (2010). A national study of the supply and demand for teachers of the agriculture education from 2006-2009. West, Olive, MI: Michigan State University.

Keigher, A. (2010). Teacher attrition and mobility: Results from 2008-09 Teacher follow-up survey (NCES 2010 - 353). Washington, DC: U.S. Department of Education.

Knobloch, N., A. (2003). Exploring a model for teaching recruitment and retention in agriculture education based on career commitment and teacher efficacy of student teacher and novice teachers in Illinois .Illinois State Board of Education.

Meeder, H., Suddreth, T., & Achieve, I. (2012). Common core state standards & career and technical education: Bridging the divide between college and career readiness. ().Achieve, Inc.

Murray, K., Flowers, J., Croom, B., & Wilson, B. (2011). The agricultural teacher's struggle for balance between career and family. Journal of Agricultural Education, 52(2), 107-117.

Rice, J. E., LaVergne, D. D., & Gartin, S. A. (2011). Agricultural teacher perceptions of school components as motivational factors to continue teaching and demotivational factors to discontinue teaching. Journal of Career & Technical Education, 26(1), 105.

Shoulders, C. W., & Myers, B. E. (2011). Considering professional identity to enhance agriculture teacher development. Journal of Agricultural Education, 52(4), 98-108.

Smalley, S. W., & Retallick, M. S. (2011). Purposes, activities and documentation of early field experience in agricultural education teacher education: National Delphi study. Journal of Agricultural Education, 52(3), 100-109.

Smalley, S. W., & Rettallick, M. S. (2012). Agriculture education early field experience through the lens of the EFE model.53 (2), 99-109.

Smithers, J. (2013). Illinois secondary agriculture teachers supply and demand. ().FCAE.

Steffen, R. (2013). Project communication (A. Gullidge Trans.).

United States Department of Education. (2012). http://www.ed.gov/

Walker, W., D., Garton, B., L., & Kitchel, T. J. (2004). Job satisfaction and retention of secondary agriculture teachers. Journal of Agricultural Education, 45, 29-38.

Waters, M. (2012). 2012 Illinois agriculture education report: Common core state standards (CCSS) and career development postings (pg. 18).Illinois Agriculture Education.

Wolf, K., J., Foster, D., D., & Birkenholz, R., J. (2010). The relationship between teacher self-efficacy and the professional development experiences of agriculture education candidates. Journal of Agricultural Education, 51(4), 38-48.

APPENDIX A

FREQUENCY TABLES LISTED MOST IMPORTANT

TO LEAST IMPORTANT PRE-SERVICE

ACTIVITY

Frequency Tables listed Most important to Least Important Pre- Service Activity												
Question	SA		Agree		Disagree		SD		Not Appl.		No Ans.	
	n	%	n	%	n	%	n	%	n	%	n	%
Provide Classroom Instruction	64	76.2	19	22.6							1	1.2
Attend FFA Activities at the State, Section, District and State Levels	59	70.2	24	28.6							1	1.2
Mock Job Interview with Instructor	56	66.7	26	31	2	2						
Interview a Special Education Teacher	27	32.1	55	65.5	1	1			1	1		
Create Lesson Plans	48	57.1	33	39.3							2	3.6
Organize a Lesson Plan for a Substitute Teacher	48	57.1	33	39.3							3	3.6
Instruct a Lab	61	72.6	20	23.8	1	1	1	1			1	1.2
Teach Lessons of Classroom Content	56	66.7	24	28.6							4	4.8
Observe an Agriculture Teacher In The Process of Teaching 2 Lessons (Direct Instruction and Student Management)	44	52.4	36	42.9					1	1	3	3.6
Coach a Team or an Individual For Contest	49	58.3	31	36.9	1	1					3	3.6
Attend a Professional Organization Meeting	35	41.7	44	52.4	2	2					3	3.6

Visit a Site of a Students SAE Project	34	40.5	45	53.6	3	4			1	1	1	1.2
Attend IAVAT Summer Conference	42	50	36	42.9	3	4					3	3.6
Conduct A Comprehensive Evaluation of the Agriculture Education Program You are Completing Your Field Experience	32	38.1	46	54.8	5	6					1	1.2
Observe Sec. SAE Projects at Section Fair, County Fair or State Fair	31	36.9	47	56	3	4			2	2	1	1.2
Networking With All High School Faculty	30	35.7	47	56	6	7					1	1.2
Plan and Conduct a Major FFA Activity	44	52.4	33	39.3	4	5					3	3.6
Assist With a Recruitment Drive For FFA or Agriculture Courses	31	36.9	46	54.8	4	5					3	3.6
Grade Student Record Books	40	47.6	37	44	2	2			1	1	4	4.8
Observe Student Engagement With Other Students	40	47.6	37	44	4	5					3	3.6
Observe 1 or 2 Teachers From Another Subject Area	29	34.5	48	57.1	3	4			1	1	3	3.6
Hold a Mock Interview With a School Administrator	41	48.8	35	41.7	4	5	1	1			3	3.6
Participate in an Agriculture Department	33	39.3	43	51.2	4	5			1	1	3	3.6

Registered Student Organization or Club												
Reflect on the Agriculture Teacher You Are Shadowing With Others	26	31	50	59.5	5	6					3	3.6
Interview the School Guidance Counselor	23	27.4	53	63.1	3	4			1	1	4	4.8
Participate in an Ag Advisory Council and/or FFA Alumni meeting or event	27	32.1	49	58.3	4	5			1	1	3	3.6
Become an Active Member of a Professional Organization	45	53.6	30	35.7	3	4	1	1	2	2	3	3.6
Gather Valuable Data From The Community (ex: field trips, guest speakers, implement dealers, historical sites, etc.)	19	22.6	53	63.1	9	11			2	2	1	1.2
Supervise 3 SAE Projects	33	39.3	39	46.4	6	7	1	1	1	1	4	4.8
Develop or Revise Your Educational Philosophy Statement as a Future Agriculture Educator	28	33.3	44	52.4	7	8			2	2	3	3.6
Counsel Students on Career Objectives	22	26.2	48	57.1	11	13					3	3.6
Interview the Chapter Officer Team	25	29.8	44	52.4	11	13					4	4.8
Plan and Conduct an Activity in Conjunction with an Academic Teacher Involving Integration	23	27.4	46	54.8	11	13	1	1			3	3.6

of Agriculture Into Other Disciplines												
Mock Job Interview With The Principal	28	33.3	41	48.8	13	16	1	1	1	1		
Interview The Ag Advisory Council and/or FFA Alumni Chapter Leader	17	20.2	51	60.7	11	13	1	1	1	1	3	3.6
Supervise and/or Participate in a Chapter Officer Retreat	16	19	51	60.4	10	12			3	4	4	4.8
Observe an Another Agriculture Teacher With Less Than 3 Years' Experience	24	28.6	42	50	13	16	1	1			4	4.8
Attend a School Board Meeting	22	26.2	44	52.4	15	18					3	3.6
Prepare a Bulletin Board	15	17.9	51	60.7	14	17			1	1	3	3.6
Read Professional Journals	15	17.9	50	59.5	11	13	3	4	1	1	4	4.8
Keep A Daily or Weekly Journal	23	27.4	39	46.4	14	17	3	4	1	1	4	4.8
Write an Article For The Local Newspaper	16	19	42	50	17	20	2	2	4	5	3	3.6
Interview Students Who Are In Agriculture Education Course who are NOT in FFA	12	14.3	45	53.6	17	20			4	5	6	7.1
Review 5 Permanent Files of Students in Your Classes	14	16.7	38	45.2	22	26	2	2	4	5	4	4.8
Attend an Extension Program	11	13.1	40	47.6	25	30	1	1	4	5	3	3.6
Observe an University Teacher Teaching	10	11.9	41	48.8	24	29	3	4	3	4	3	3.6

Conduct an Agr-Business Case Study or Visit	7	8.3	41	48.8	25	30	2	2	6	7	3	3.6
Visit a Regional Office of Education	11	13.1	36	42.9	26	31	5	6	2	2	4	4.8
Active Member in a PanHellenic Organization (AGR, CERES, FH, Sigma Alpha, etc.)	7	8.3	19	22.6	28	33	15	18	11	13	4	4.8

APPENDIX B

RAW DATA OF SIGNIFICANT

CHI-SQUARES

Gather Community Data (Groups)

Crosstab					
			Disagree	Agree	Total
Group 1	Group 1 (IVATA Summer Conference)	Count	1_a	26_a	27
		Expected Count	3.0	24.0	27.0
		% within Group 1	3.7%	96.3%	100.0%
		% within GatherCommunityDataNEW	11.1%	36.1%	33.3%
		% of Total	1.2%	32.1%	33.3%
		Residual	-2.0	2.0	
	Group 2 (Email after August 1)	Count	8_a	32_b	40
		Expected Count	4.4	35.6	40.0
		% within Group 1	20.0%	80.0%	100.0%
		% within GatherCommunityDataNEW	88.9%	44.4%	49.4%
		% of Total	9.9%	39.5%	49.4%
		Residual	3.6	-3.6	
	Group 3 (Email Reminder August 18)	Count	0_a	14_a	14
		Expected Count	1.6	12.4	14.0
		% within Group 1	0.0%	100.0%	100.0%
		% within GatherCommunityDataNEW	0.0%	19.4%	17.3%
		% of Total	0.0%	17.3%	17.3%
		Residual	-1.6	1.6	
Total		Count	9	72	81
		Expected Count	9.0	72.0	81.0
		% within Group 1	11.1%	88.9%	100.0%
		% within GatherCommunityDataNEW	100.0%	100.0%	100.0%
		% of Total	11.1%	88.9%	100.0%
Each subscript letter denotes a subset of GatherCommunityDataNEW categories whose column proportions do not differ significantly from each other at the .05 level.					

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.450[a]	2	.040	.035		
Likelihood Ratio	7.924	2	.019	.040		
Fisher's Exact Test	5.392			.051		
Linear-by-Linear Association	.051[b]	1	.822	1.000	.507	.193
N of Valid Cases	81					
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.56.						
b. The standardized statistic is -.225.						

Supervise an FFA Officer Retreat (Group)

Crosstab					
			Disagree	Agree	Total
Group 1	Group 1 (IVATA Summer Conference)	Count	0_a	27_b	27
		Expected Count	3.5	23.5	27.0
		% within Group 1	0.0%	100.0%	100.0%
		% within SuperviseRetreatNEW	0.0%	40.3%	35.1%
		% of Total	0.0%	35.1%	35.1%
		Residual	-3.5	3.5	
	Group 2 (Email after August 1)	Count	7_a	30_a	37
		Expected Count	4.8	32.2	37.0
		% within Group 1	18.9%	81.1%	100.0%
		% within SuperviseRetreatNEW	70.0%	44.8%	48.1%
		% of Total	9.1%	39.0%	48.1%
		Residual	2.2	-2.2	
	Group 3 (Email Reminder August 18)	Count	3_a	10_a	13
		Expected Count	1.7	11.3	13.0
		% within Group 1	23.1%	76.9%	100.0%
		% within SuperviseRetreatNEW	30.0%	14.9%	16.9%
		% of Total	3.9%	13.0%	16.9%
		Residual	1.3	-1.3	
Total		Count	10	67	77
		Expected Count	10.0	67.0	77.0
		% within Group 1	13.0%	87.0%	100.0%
		% within SuperviseRetreatNEW	100.0%	100.0%	100.0%
		% of Total	13.0%	87.0%	100.0%
Each subscript letter denotes a subset of SuperviseRetreatNEW categories whose column proportions do not differ significantly from each other at the .05 level.					

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.353[a]	2	.042	.038		
Likelihood Ratio	9.527	2	.009	.017		
Fisher's Exact Test	7.398			.020		
Linear-by-Linear Association	5.414[b]	1	.020	.028	.019	.014
N of Valid Cases	77					
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.69.						
b. The standardized statistic is -2.327.						

Review 5 Students Permanent File (Group)

Crosstab					
			Disagree	Agree	Total
Group 1	Group 1 (IVATA Summer Conference)	Count	4_a	22_b	26
		Expected Count	8.2	17.8	26.0
		% within Group 1	15.4%	84.6%	100.0%
		% within RwPrmFls5stdntsNEW	16.7%	42.3%	34.2%
		% of Total	5.3%	28.9%	34.2%
		Residual	-4.2	4.2	
	Group 2 (Email after August 1)	Count	17_a	20_b	37
		Expected Count	11.7	25.3	37.0
		% within Group 1	45.9%	54.1%	100.0%
		% within RwPrmFls5stdntsNEW	70.8%	38.5%	48.7%
		% of Total	22.4%	26.3%	48.7%
		Residual	5.3	-5.3	
	Group 3 (Email Reminder August 18)	Count	3_a	10_a	13
		Expected Count	4.1	8.9	13.0
		% within Group 1	23.1%	76.9%	100.0%
		% within RwPrmFls5stdntsNEW	12.5%	19.2%	17.1%
		% of Total	3.9%	13.2%	17.1%
		Residual	-1.1	1.1	
Total		Count	24	52	76
		Expected Count	24.0	52.0	76.0
		% within Group 1	31.6%	68.4%	100.0%
		% within RwPrmFls5stdntsNEW	100.0%	100.0%	100.0%
		% of Total	31.6%	68.4%	100.0%

Each subscript letter denotes a subset of RwPrmFls5stdntsNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.125[a]	2	.028	.028		
Likelihood Ratio	7.376	2	.025	.026		
Fisher's Exact Test	6.920			.026		
Linear-by-Linear Association	1.198[b]	1	.274	.294	.179	.077
N of Valid Cases	76					
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.11.						
b. The standardized statistic is -1.094.						

Instruct a lab (Age)

Crosstab					
			IntructLabNEW		
			Disagree	Agree	Total
New Age	22-35 years	Count	0_a	42_a	42
		Expected Count	1.0	41.0	42.0
		% within New Age	0.0%	100.0 %	100.0%
		% within IntructLabNEW	0.0%	51.9%	50.6%
		% of Total	0.0%	50.6%	50.6%
		Residual	-1.0	1.0	
	36-50	Count	0_a	21_a	21
		Expected Count	.5	20.5	21.0
		% within New Age	0.0%	100.0 %	100.0%
		% within IntructLabNEW	0.0%	25.9%	25.3%
		% of Total	0.0%	25.3%	25.3%
		Residual	-.5	.5	
	51 and older	Count	2_a	18_b	20
		Expected Count	.5	19.5	20.0
		% within New Age	10.0%	90.0%	100.0%
		% within IntructLabNEW	100.0%	22.2%	24.1%
		% of Total	2.4%	21.7%	24.1%
		Residual	1.5	-1.5	
Total		Count	2	81	83
		Expected Count	2.0	81.0	83.0
		% within New Age	2.4%	97.6%	100.0%
		% within IntructLabNEW	100.0%	100.0 %	100.0%
		% of Total	2.4%	97.6%	100.0%
Each subscript letter denotes a subset of IntructLabNEW categories whose column proportions do not differ significantly from each other at the .05 level.					

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.456[a]	2	.040	.056		
Likelihood Ratio	5.851	2	.054	.056		
Fisher's Exact Test	4.236			.056		
Linear-by-Linear Association	4.788[b]	1	.029	.056	.056	.056
N of Valid Cases	83					
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .48.						
b. The standardized statistic is -2.188.						

Grade Student Record Books (Age)

Crosstab					
			Disagree	Agree	Total
New Age	22-35 years	Count	0_a	40_a	40
		Expected Count	1.0	39.0	40.0
		% within New Age	0.0%	100.0%	100.0%
		% within GradeStdtRcrdBksNEW	0.0%	51.9%	50.6%
		% of Total	0.0%	50.6%	50.6%
		Residual	-1.0	1.0	
	36-50	Count	2_a	18_b	20
		Expected Count	.5	19.5	20.0
		% within New Age	10.0%	90.0%	100.0%
		% within GradeStdtRcrdBksNEW	100.0%	23.4%	25.3%
		% of Total	2.5%	22.8%	25.3%
		Residual	1.5	-1.5	
	51 and older	Count	0_a	19_a	19
		Expected Count	.5	18.5	19.0
		% within New Age	0.0%	100.0%	100.0%
		% within GradeStdtRcrdBksNEW	0.0%	24.7%	24.1%
		% of Total	0.0%	24.1%	24.1%
		Residual	-.5	.5	
Total		Count	2	77	79
		Expected Count	2.0	77.0	79.0
		% within New Age	2.5%	97.5%	100.0%
		% within GradeStdtRcrdBksNEW	100.0%	100.0%	100.0%
		% of Total	2.5%	97.5%	100.0%

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.053[a]	2	.048	.117		
Likelihood Ratio	5.651	2	.059	.117		
Fisher's Exact Test	4.041			.117		
Linear-by-Linear Association	.212[b]	1	.645	.740	.487	.308
N of Valid Cases	79					
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .48.						
b. The standardized statistic is -.460.						

Participating in a University Agriculture Department RSO

Crosstab					
			ParicipatedinAgDepRSONEW		
			Disagree	Agree	Total
New Age	22-35 years	Count	1[a]	41[a]	42
		Expected Count	2.1	39.9	42.0
		% within New Age	2.4%	97.6%	100.0%
		% within ParicipatedinAgDepRSONEW	25.0%	53.9%	52.5%
		% of Total	1.3%	51.3%	52.5%
		Residual	-1.1	1.1	
	36-50	Count	0[a]	19[a]	19
		Expected Count	1.0	18.1	19.0
		% within New Age	0.0%	100.0%	100.0%
		% within ParicipatedinAgDepRSONEW	0.0%	25.0%	23.8%
		% of Total	0.0%	23.8%	23.8%
		Residual	-1.0	.9	
	51 and older	Count	3[a]	16[b]	19
		Expected Count	1.0	18.1	19.0
		% within New Age	15.8%	84.2%	100.0%
		% within ParicipatedinAgDepRSONEW	75.0%	21.1%	23.8%
		% of Total	3.8%	20.0%	23.8%
		Residual	2.1	-2.1	
Total		Count	4	76	80
		Expected Count	4.0	76.0	80.0
		% within New Age	5.0%	95.0%	100.0%
		% within ParicipatedinAgDepRSONEW	100.0%	100.0%	100.0%
		% of Total	5.0%	95.0%	100.0%

Each subscript letter denotes a subset of ParicipatedinAgDepRSONEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.263[a]	2	.044	.080		
Likelihood Ratio	5.737	2	.057	.098		
Fisher's Exact Test	4.494			.098		
Linear-by-Linear Association	3.793[b]	1	.051	.058	.058	.044
N of Valid Cases	80					
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .95.						

Prepare a Bulletin Board (Gender)

Crosstab					
			Disagree	Agree	Total
Gender	Female	Count	1_a	30_b	31
		Expected Count	5.4	25.6	31.0
		% within Gender	3.2%	96.8%	100.0%
		% within PrepareBulletinBoardNEW	7.1%	45.5%	38.8%
		% of Total	1.3%	37.5%	38.8%
		Residual	-4.4	4.4	
	Male	Count	13_a	36_b	49
		Expected Count	8.6	40.4	49.0
		% within Gender	26.5%	73.5%	100.0%
		% within PrepareBulletinBoardNEW	92.9%	54.5%	61.3%
		% of Total	16.3%	45.0%	61.3%
		Residual	4.4	-4.4	
Total		Count	14	66	80
		Expected Count	14.0	66.0	80.0
		% within Gender	17.5%	82.5%	100.0%
		% within PrepareBulletinBoardNEW	100.0%	100.0%	100.0%
		% of Total	17.5%	82.5%	100.0%

Each subscript letter denotes a subset of PrepareBulletinBoardNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.143[a]	1	.008	.013	.006	
Continuity Correction[b]	5.620	1	.018			
Likelihood Ratio	8.665	1	.003	.007	.006	
Fisher's Exact Test				.007	.006	
Linear-by-Linear Association	7.053[c]	1	.008	.013	.006	.005
N of Valid Cases	80					
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.43.						
b. Computed only for a 2x2 table						
c. The standardized statistic is -2.656.						

Observe a University Teacher Teaching (Gender)

Crosstab					
			New		
			Disagree	Agree	Total
Gender	Female	Count	6_a	23_b	29
		Expected Count	10.0	19.0	29.0
		% within Gender	20.7%	79.3%	100.0%
		% within ObsveUvistyTeacherNEW	22.2%	45.1%	37.2%
		% of Total	7.7%	29.5%	37.2%
		Residual	-4.0	4.0	
	Male	Count	21_a	28_b	49
		Expected Count	17.0	32.0	49.0
		% within Gender	42.9%	57.1%	100.0%
		% within ObsveUvistyTeacherNEW	77.8%	54.9%	62.8%
		% of Total	26.9%	35.9%	62.8%
		Residual	4.0	-4.0	
Total		Count	27	51	78
		Expected Count	27.0	51.0	78.0
		% within Gender	34.6%	65.4%	100.0%
		% within ObsveUvistyTeacherNEW	100.0%	100.0%	100.0%
		% of Total	34.6%	65.4%	100.0%

Each subscript letter denotes a subset of ObsveUvistyTeacherNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	3.955[a]	1	.047	.053	.039	
Continuity Correction[b]	3.037	1	.081			
Likelihood Ratio	4.131	1	.042	.053	.039	
Fisher's Exact Test				.053	.039	
Linear-by-Linear Association	3.905[c]	1	.048	.053	.039	.028
N of Valid Cases	78					
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.04.						
b. Computed only for a 2x2 table						
c. The standardized statistic is -1.976.						

Be an Active Member in a PanHellenic Organization
(Number of Years Taught)

Crosstab					
			PanHellenicOrg		
			Disagree	Agree	Total
New_Years	1	Count	26_a	9_b	35
		Expected Count	21.8	13.2	35.0
		% within New_Years	74.3%	25.7%	100.0%
		% within ActivememberinPanhellenicOrganizationNEW	60.5%	34.6%	50.7%
		% of Total	37.7%	13.0%	50.7%
		Residual	4.2	-4.2	
	2	Count	13_a	9_a	22
		Expected Count	13.7	8.3	22.0
		% within New_Years	59.1%	40.9%	100.0%
		% within ActivememberinPanhellenicOrganizationNEW	30.2%	34.6%	31.9%
		% of Total	18.8%	13.0%	31.9%
		Residual	-.7	.7	
	3	Count	4_a	8_b	12
		Expected Count	7.5	4.5	12.0
		% within New_Years	33.3%	66.7%	100.0%
		% within ActivememberinPanhellenicOrganizationNEW	9.3%	30.8%	17.4%
		% of Total	5.8%	11.6%	17.4%
		Residual	-3.5	3.5	
Total		Count	43	26	69
		Expected Count	43.0	26.0	69.0
		% within New_Years	62.3%	37.7%	100.0%
		% within ActivememberinPanhellenicOrganizationNEW	100.0%	100.0%	100.0%

	% of Total	62.3%	37.7%	100.0%

Each subscript letter denotes a subset of ActivememberinPanhellenicOrganizationNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.525[a]	2	.038	.036		
Likelihood Ratio	6.476	2	.039	.047		
Fisher's Exact Test	6.328			.038		
Linear-by-Linear Association	6.271[b]	1	.012	.014	.010	.006
N of Valid Cases	69					

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.52.

b. The standardized statistic is 2.504.

Interview a Special Education Resource Teacher
(Number of Students Taught Per School Year)

Crosstab					
			IntvwSpec.Ed.Teacher NEW		
			Disagree	Agree	Total
Number of Students Taught Per School Year	Very Small	Count	0[a]	24[a]	24
		Expected Count	.3	23.7	24.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within IntvwSpec.Ed.TeacherNEW	0.0%	29.3%	28.9%
		% of Total	0.0%	28.9%	28.9%
		Residual	-.3	.3	
	Small	Count	0[a]	31[a]	31
		Expected Count	.4	30.6	31.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within IntvwSpec.Ed.TeacherNEW	0.0%	37.8%	37.3%
		% of Total	0.0%	37.3%	37.3%
		Residual	-.4	.4	
	Medium	Count	0[a]	21[a]	21
		Expected Count	.3	20.7	21.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within IntvwSpec.Ed.TeacherNEW	0.0%	25.6%	25.3%
		% of Total	0.0%	25.3%	25.3%
		Residual	-.3	.3	
	Large	Count	1[a]	6[b]	7

		Expected Count	.1	6.9	7.0
		% within Number of Students Taughter Per School Year	14.3%	85.7%	100.0%
		% within IntvwSpec.Ed.TeacherNEW	100.0%	7.3%	8.4%
		% of Total	1.2%	7.2%	8.4%
		Residual	.9	-.9	
Total		Count	1	82	83
		Expected Count	1.0	82.0	83.0
		% within Number of Students Taughter Per School Year	1.2%	98.8%	100.0%
		% within IntvwSpec.Ed.TeacherNEW	100.0%	100.0%	100.0%
		% of Total	1.2%	98.8%	100.0%

Each subscript letter denotes a subset of IntvwSpec.Ed.TeacherNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	10.990[a]	3	.012	.084		
Likelihood Ratio	5.084	3	.166	.084		
Fisher's Exact Test	5.541			.084		
Linear-by-Linear Association	4.046[b]	1	.044	.084	.084	.084
N of Valid Cases	83					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .08.

b. The standardized statistic is -2.011.

Go to an SAE Location
(Number of Students Taught Per School Year)

Crosstab					
			GotoSAElocationNEW		
			Disagree	Agree	Total
Number of Students Taught Per School Year	Very Small	Count	0_a	24_a	24
		Expected Count	.9	23.1	24.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within GotoSAElocationNEW	0.0%	30.4%	29.3%
		% of Total	0.0%	29.3%	29.3%
		Residual	-.9	.9	
	Small	Count	0_a	31_a	31
		Expected Count	1.1	29.9	31.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within GotoSAElocationNEW	0.0%	39.2%	37.8%
		% of Total	0.0%	37.8%	37.8%
		Residual	-1.1	1.1	
	Medium	Count	3_a	18_b	21
		Expected Count	.8	20.2	21.0
		% within Number of Students Taughter Per School Year	14.3%	85.7%	100.0%
		% within GotoSAElocationNEW	100.0%	22.8%	25.6%
		% of Total	3.7%	22.0%	25.6%
		Residual	2.2	-2.2	
	Large	Count	0_a	6_a	6
		Expected Count	.2	5.8	6.0

		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within GotoSAElocationNEW	0.0%	7.6%	7.3%
		% of Total	0.0%	7.3%	7.3%
		Residual	-.2	.2	
Total		Count	3	79	82
		Expected Count	3.0	79.0	82.0
		% within Number of Students Taughter Per School Year	3.7%	96.3%	100.0%
		% within GotoSAElocationNEW	100.0%	100.0%	100.0%
		% of Total	3.7%	96.3%	100.0%

Each subscript letter denotes a subset of GotoSAElocationNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.045[a]	3	.029	.028		
Likelihood Ratio	8.513	3	.037	.028		
Fisher's Exact Test	5.878			.042		
Linear-by-Linear Association	2.939[b]	1	.086	.109	.086	.063
N of Valid Cases	82					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .22.

b. The standardized statistic is -1.714.

Grade Student Record Books
(Number of Students Taught Per School Year)

Crosstab					
			New		
			Disagree	Agree	Total
Number of Students Taught Per School Year	Very Small	Count	0[a]	24[a]	24
		Expected Count	.6	23.4	24.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within GradeStdtRcrdBksNEW	0.0%	31.2%	30.4%
		% of Total	0.0%	30.4%	30.4%
		Residual	-.6	.6	
	Small	Count	0[a]	30[a]	30
		Expected Count	.8	29.2	30.0
		% within Number of Students Taughter Per School Year	0.0%	100.0%	100.0%
		% within GradeStdtRcrdBksNEW	0.0%	39.0%	38.0%
		% of Total	0.0%	38.0%	38.0%
		Residual	-.8	.8	
	Medium	Count	1[a]	19[a]	20
		Expected Count	.5	19.5	20.0
		% within Number of Students Taughter Per School Year	5.0%	95.0%	100.0%
		% within GradeStdtRcrdBksNEW	50.0%	24.7%	25.3%
		% of Total	1.3%	24.1%	25.3%
		Residual	.5	-.5	
	Large	Count	1[a]	4[b]	5
		Expected Count	.1	4.9	5.0
		% within Number of Students Taughter Per School Year	20.0%	80.0%	100.0%

		% within GradeStdtRcrdBksNEW	50.0%	5.2%	6.3%
		% of Total	1.3%	5.1%	6.3%
		Residual	.9	-.9	
Total		Count	2	77	79
		Expected Count	2.0	77.0	79.0
		% within Number of Students Taughter Per School Year	2.5%	97.5%	100.0%
		% within GradeStdtRcrdBksNEW	100.0%	100.0%	100.0%
		% of Total	2.5%	97.5%	100.0%
Each subscript letter denotes a subset of GradeStdtRcrdBksNEW categories whose column proportions do not differ significantly from each other at the .05 level.					

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	8.080[a]	3	.044	.036		
Likelihood Ratio	5.710	3	.127	.036		
Fisher's Exact Test	5.633			.036		
Linear-by-Linear Association	5.108[b]	1	.024	.036	.036	.032
N of Valid Cases	79					
a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is .13.						
b. The standardized statistic is -2.260.						

Interview Students in Agriculture Classes NOT in FFA
(University Attended)

Crosstab					
			New		
			Disagree	Agree	Total
College Attended	Illinois State University	Count	8_a	8_b	16
		Expected Count	3.7	12.3	16.0
		% within College Attended	50.0%	50.0%	100.0%
		% within IntvwStudentsinAgnotFFANEW	47.1%	14.0%	21.6%
		% of Total	10.8%	10.8%	21.6%
		Residual	4.3	-4.3	
	Southern Illinois University	Count	3_a	12_a	15
		Expected Count	3.4	11.6	15.0
		% within College Attended	20.0%	80.0%	100.0%
		% within IntvwStudentsinAgnotFFANEW	17.6%	21.1%	20.3%
		% of Total	4.1%	16.2%	20.3%
		Residual	-.4	.4	
	Western Illinois University	Count	4_a	8_a	12
		Expected Count	2.8	9.2	12.0
		% within College Attended	33.3%	66.7%	100.0%
		% within IntvwStudentsinAgnotFFANEW	23.5%	14.0%	16.2%
		% of Total	5.4%	10.8%	16.2%
		Residual	1.2	-1.2	
	University of Illinois	Count	1_a	21_b	22
		Expected Count	5.1	16.9	22.0
		% within College Attended	4.5%	95.5%	100.0%
		% within IntvwStudentsinAgnotFFANEW	5.9%	36.8%	29.7%
		% of Total	1.4%	28.4%	29.7%
		Residual	-4.1	4.1	
		Count	0_a	3_a	3
		Expected Count	.7	2.3	3.0

	Out of State University	% within College Attended	0.0%	100.0%	100.0%
		% within IntvwStudentsinAgnotFFANEW	0.0%	5.3%	4.1%
		% of Total	0.0%	4.1%	4.1%
		Residual	-.7	.7	
	None	Count	1[a]	5[a]	6
		Expected Count	1.4	4.6	6.0
		% within College Attended	16.7%	83.3%	100.0%
		% within IntvwStudentsinAgnotFFANEW	5.9%	8.8%	8.1%
		% of Total	1.4%	6.8%	8.1%
		Residual	-.4	.4	
Total		Count	17	57	74
		Expected Count	17.0	57.0	74.0
		% within College Attended	23.0%	77.0%	100.0%
		% within IntvwStudentsinAgnotFFANEW	100.0%	100.0%	100.0%
		% of Total	23.0%	77.0%	100.0%
Each subscript letter denotes a subset of IntvwStudentsinAgnotFFANEW categories whose column proportions do not differ significantly from each other at the .05 level.					

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	12.659[a]	5	.027	.025		
Likelihood Ratio	13.753	5	.017	.027		
Fisher's Exact Test	11.830			.022		
Linear-by-Linear Association	7.283[b]	1	.007	.007	.003	.002
N of Valid Cases	74					
a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .69.						
b. The standardized statistic is 2.699.						

Develop Education Philosophy (University Attended)

Crosstab					
			DvlopEdPhilopsohyNEW		
			Disagree	Agree	Total
College Attended	Illinois State University	Count	5_a	13_b	18
		Expected Count	1.6	16.4	18.0
		% within College Attended	27.8%	72.2%	100.0%
		% within DvlopEdPhilopsohyNEW	71.4%	18.1%	22.8%
		% of Total	6.3%	16.5%	22.8%
		Residual	3.4	-3.4	
	Southern Illinois University	Count	1_a	14_a	15
		Expected Count	1.3	13.7	15.0
		% within College Attended	6.7%	93.3%	100.0%
		% within DvlopEdPhilopsohyNEW	14.3%	19.4%	19.0%
		% of Total	1.3%	17.7%	19.0%
		Residual	-.3	.3	
	Western Illinois University	Count	0_a	12_a	12
		Expected Count	1.1	10.9	12.0
		% within College Attended	0.0%	100.0%	100.0%
		% within DvlopEdPhilopsohyNEW	0.0%	16.7%	15.2%
		% of Total	0.0%	15.2%	15.2%
		Residual	-1.1	1.1	
	University of Illinois	Count	0_a	24_a	24
		Expected Count	2.1	21.9	24.0
		% within College Attended	0.0%	100.0%	100.0%
		% within DvlopEdPhilopsohyNEW	0.0%	33.3%	30.4%
		% of Total	0.0%	30.4%	30.4%
		Residual	-2.1	2.1	
		Count	0_a	3_a	3
		Expected Count	.3	2.7	3.0

	Out of State University	% within College Attended	0.0%	100.0%	100.0%
		% within DvlopEdPhilopsohyNEW	0.0%	4.2%	3.8%
		% of Total	0.0%	3.8%	3.8%
		Residual	-.3	.3	
	None	Count	1_a	6_a	7
		Expected Count	.6	6.4	7.0
		% within College Attended	14.3%	85.7%	100.0%
		% within DvlopEdPhilopsohyNEW	14.3%	8.3%	8.9%
		% of Total	1.3%	7.6%	8.9%
		Residual	.4	-.4	
Total		Count	7	72	79
		Expected Count	7.0	72.0	79.0
		% within College Attended	8.9%	91.1%	100.0%
		% within DvlopEdPhilopsohyNEW	100.0%	100.0%	100.0%
		% of Total	8.9%	91.1%	100.0%

Each subscript letter denotes a subset of DvlopEdPhilopsohyNEW categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	12.112[a]	5	.033	.042		
Likelihood Ratio	12.930	5	.024	.021		
Fisher's Exact Test	9.611			.029		
Linear-by-Linear Association	4.207[b]	1	.040	.052	.023	.012
N of Valid Cases	79					

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .27.

b. The standardized statistic is 2.051.

Attend a School Board Meeting (University Attended)

Crosstab					
			AttndSchlBrdMtgAEM		
			Disagree	Agree	Total
College Attended	Illinois State University	Count	5_a	13_a	18
		Expected Count	3.3	14.7	18.0
		% within College Attended	27.8%	72.2%	100.0%
		% within AttndSchlBrdMtgAEM	33.3%	19.7%	22.2%
		% of Total	6.2%	16.0%	22.2%
		Residual	1.7	-1.7	
	Southern Illinois University	Count	1_a	14_a	15
		Expected Count	2.8	12.2	15.0
		% within College Attended	6.7%	93.3%	100.0%
		% within AttndSchlBrdMtgAEM	6.7%	21.2%	18.5%
		% of Total	1.2%	17.3%	18.5%
		Residual	-1.8	1.8	
	Western Illinois University	Count	0_a	14_b	14
		Expected Count	2.6	11.4	14.0
		% within College Attended	0.0%	100.0%	100.0%
		% within AttndSchlBrdMtgAEM	0.0%	21.2%	17.3%
		% of Total	0.0%	17.3%	17.3%
		Residual	-2.6	2.6	
	University of Illinois	Count	4_a	20_a	24
		Expected Count	4.4	19.6	24.0
		% within College Attended	16.7%	83.3%	100.0%
		% within AttndSchlBrdMtgAEM	26.7%	30.3%	29.6%
		% of Total	4.9%	24.7%	29.6%
		Residual	-.4	.4	

	Out of State University	Count	1_a	2_a	3
		Expected Count	.6	2.4	3.0
		% within College Attended	33.3%	66.7%	100.0%
		% within AttndSchlBrdMtgAEM	6.7%	3.0%	3.7%
		% of Total	1.2%	2.5%	3.7%
		Residual	.4	-.4	
	None	Count	4_a	3_b	7
		Expected Count	1.3	5.7	7.0
		% within College Attended	57.1%	42.9%	100.0%
		% within AttndSchlBrdMtgAEM	26.7%	4.5%	8.6%
		% of Total	4.9%	3.7%	8.6%
		Residual	2.7	-2.7	
Total		Count	15	66	81
		Expected Count	15.0	66.0	81.0
		% within College Attended	18.5%	81.5%	100.0%
		% within AttndSchlBrdMtgAEM	100.0%	100.0%	100.0%
		% of Total	18.5%	81.5%	100.0%

Each subscript letter denotes a subset of AttndSchlBrdMtgAEM categories whose column proportions do not differ significantly from each other at the .05 level.

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	13.013[a]	5	.023	.023		
Likelihood Ratio	14.000	5	.016	.023		
Fisher's Exact Test	12.095			.017		
Linear-by-Linear Association	1.724[b]	1	.189	.224	.113	.032
N of Valid Cases	81					
a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .56.						
b. The standardized statistic is -1.313.						

APPENDIX C

CRONBACH ALPHA RESULT

Cronbach's Alpha	N of Items
.934	49

APPENDIX D

SURVEY INSTRUMENT

Survey Instrument

(Sent in the email requesting participation) We are attempting to identify those experiences in the teacher preparation program (including student teaching) that are vital to the success of a beginning teacher. To help us identify those activities most influential to the success of beginning teachers, please think back to your training as a teacher, and the first few years of teaching, and for each experience listed below, indicate whether you strongly agree, agree, disagree or strongly disagree that each of these activities was ***vital*** to your initial success.

In part B please use the following scale, 1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree. If your preparation program did not include a given item or you did not participate, please mark N/A. For the second column, please indicate WHERE you think this activity BEST fits into the program, early clinicals (ECE), later clinicals (ELE) or during student teaching (ST).

*********ACTUAL SURVEY**********

Informed Consent

PLEASE READ THIS DOCUMENT CAREFULLY. CLICK TO CONTINUE BELOW ONLY IF YOU AGREE TO PARTICIPATE AND YOU FULLY UNDERSTAND YOUR RIGHTS. YOU MUST BE 18 YEARS OF AGE TO GIVE YOUR CONSENT TO PARTICIPATE IN RESEARCH. FOR THIS PROJECT, YOU MUST BE 18 YEARS OF AGE TO PARTICIPATE. IF YOU DESIRE A COPY OF THIS CONSENT FORM, YOU MAY PRINT THIS FORM.

The policy of the Department of Agriculture at Illinois State University is that all research participation in the Department is voluntary, and you have the right to withdraw at any time, without prejudice, should you object to the nature of the research. Your responses are confidential. Any report of the data collected will be in summary form, without identifying individuals. You are entitled to ask questions and to receive an explanation after your participation.

If you have concerns about your participation in this study, you may contact:
Dr. Richard Steffen Phone: (309) 438-8084 or by email, rwsteff@ilstu.edu.

Description of the Study:
This study will consist of a single electronic questionnaire asking for your perceptions of the importance of the activities and experiences required of students in an Agricultural Education Teacher preparation program and some basic demographic questions.

Nature of Participation:
To evaluate what experiences and activities are most important in preparing students to be teachers as identified by practicing teachers. With this information, we can make changes to our programs and recommendations to governing bodies to work towards developing effective teacher education programs.

Possible Risks:
There is little risk to you by completing the survey. These might include:

1) When filling out questionnaires, you may come across a question or answer choice that you find unpleasant, upsetting, or otherwise objectionable
2) You will be asked to provide some information about yourself.

Possible Benefits:

1) When your participation is complete, you will be given an opportunity to learn about this research, which may be useful to you in understanding yourself and others.
2) You will have an opportunity to contribute to the Agricultural Education profession by participating in this research. In particular, we hope our results will be helpful to educational professionals who work with Agriculture teachers.
3) Your contributions may help future agriculture teachers by making the teacher preparation experience more enjoyable and meaningful.

Confidentiality:
This survey is ANONYMOUS. Your questionnaire responses will be kept private. All data will be kept secured, in accord with the standards of the University, Federal regulations, and the American Psychological Association. No one will be able to know which are your questionnaire responses. Finally, remember that it is no individual person's responses that interest us; we are studying the usefulness of the tests in question for people in general.

Opportunities to Question:

- Any technical questions about this research may be directed to the Principal Investigator, Dr. Richard Steffen, Professor of Agricultural Education, (309) 438-8084
- Any questions regarding your rights as a research participant or research-related injuries may be directed to Dr. Joseph Casto, Office of Research, Ethics, and Compliance, (309) 438-8451

Opportunities to Withdraw at will:
If you decide now or at any point to withdraw this consent or stop participating, you are free to do so at no penalty to yourself. You are free to skip specific questions and continue participating at no penalty.

Opportunities to be Informed of Results:
In all likelihood, the results will be fully available around: February 1 2014. Preliminary results will be available earlier. If you wish to be told the results of this research, please contact Dr. Steffen at (309) 438-8084 or rwsteff@ilstu.edu.

There is a chance that the results from this study will be published in an Agricultural Education journal, which would be available in many libraries. In such an article, participants would be identified in general terms as Agricultural Education teachers or teachers.

- o Yes I agree to participate and am over 18
- o No I do now agree to participate or I am under 18

Survey Questions

Part A

1. Gender
    A. Female
    B. Male

2. Age
    A. 22-25
    B. 26-30
    C. 31-35
    D. 36-40
    E. 41-45
    F. 46-50
    G. 51-55
    H. 56-60

3. Number of years teaching
    A. 1-2
    B. 2-5
    C. 6-10
    D. 11-15
    E. 16-20
    F. 21-25
    G. 26-30
    H. 31-35
    I. 36-40
    J. 41-45
    K. 46-50+

4. Number of students in your school that you teach
    A. Less than 100
    B. 100 -200
    C. 201 – 300
    D. 301- 400
    E. 401 – 500
    F. 501 – 600
    G. 601 – 700

H. 701 – 800
I. 800 – 900
J. 901 – 1000
K. 1000+

5. Where did you receive your Bachelor's degree agriculture education?
    A. Illinois State University
    B. University of Illinois
    C. Western Illinois University
    D. Southern Illinois University
    E. Out of state university
    F. N/A – did not receive a bachelor's in agriculture education

Part B:
Please use the following scale, 1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree. If your preparation program did not include a given item or you did not participate, please mark N/A. For the second column, please indicate WHERE you think this activity BEST fits into the program, early clinicals (ECE), later clinicals (ELE) or during student teaching (ST).

First pull down menu: Please indicate your level of agreement on how vital each activity is for preparing a student to become an Agriculture teacher.
Second pull down menu: Please indicate **when** in the student's program this activity best fits.

1. Conduct a pre-student teaching "job" Interview with your cooperating instructor
    4 3 2 1 NA ECE LCE ST ALL NA
2. Conduct a pre-student teaching "job" Interview with the Principal of the cooperating school
    4 3 2 1 NA ECE LCE ST ALL NA
3. Networking with key individuals of the school such as secretaries, janitors, maintenance people, CTE directors.
    4 3 2 1 NA ECE LCE ST ALL NA
4. Interviewing a special education resource teacher
    4 3 2 1 NA ECE LCE ST ALL NA

5. Conducting comprehensive evaluation of the agricultural education program at which you are completing your field of experience

4 3 2 1 NA ECE LCE ST ALL NA

6. Gathering community data that are valuable resources (field trips, guest speakers, location of historical sites, implement dealers, nurseries, fertilizer plants. Etc.)

4 3 2 1 NA ECE LCE ST ALL NA

7. Actively involved in students SAE by going to the place where the student projects are located

4 3 2 1 NA ECE LCE ST ALL NA

8. Observe section SAE projects at section fair, county fair or state fair

4 3 2 1 NA ECE LCE ST ALL NA

9. Attending FFA activities at the chapter, section, district and state levels

4 3 2 1 NA ECE LCE ST ALL NA

10. Provide instruction in the classroom

4 3 2 1 NA ECE LCE ST ALL NA

11. Provide instruction in the lab

4 3 2 1 NA ECE LCE ST ALL NA

12. Interview the chapter officer team

4 3 2 1 NA ECE LCE ST ALL NA

13. Supervise and/or participate in a chapter officer retreat

4 3 2 1 NA ECE LCE ST ALL NA

14. Interview students in agriculture education course who are NOT in FFA

4 3 2 1 NA ECE LCE ST ALL NA

15. Observing agriculture teacher in the process of teaching two lessons. One being direct instruction and the other lesson being student management component

4 3 2 1 NA ECE LCE ST ALL NA

16. Observe student engagement with other students

4 3 2 1 NA ECE LCE ST ALL NA

17. Observe 1 or 2 teachers from another subject area

4 3 2 1 NA ECE LCE ST ALL NA

18. Teaching lessons of classroom content

4 3 2 1 NA ECE LCE ST ALL NA

19. Observe another Ag teacher with less than three years teaching experience

4 3 2 1 NA ECE LCE ST ALL NA

20. Interview the ag advisory council and/or FFA alumni chapter leader

4 3 2 1 NA ECE LCE ST ALL NA

21. Participate in an Ag advisory Council and/or FFA Alumni Chapter meeting or event.

4 3 2 1 NA ECE LCE ST ALL NA

22. Reflect on the ag teacher you are shadowing as a leader within the school and among fellow colleges

4 3 2 1 NA ECE LCE ST ALL NA

23. Develop or revise your educational philosophy statement as a future agriculture educator

4 3 2 1 NA ECE LCE ST ALL NA

24. Attend a professional organization meeting

4 3 2 1 NA ECE LCE ST ALL NA

25. Attend IAVAT summer conference

4 3 2 1 NA ECE LCE ST ALL NA

26. Attend a school board meeting

4 3 2 1 NA ECE LCE ST ALL NA

27. Attend a program by the extension

4 3 2 1 NA ECE LCE ST ALL NA

28. Interview a guidance counselor

4 3 2 1 NA ECE LCE ST ALL NA

29. Keep a daily or weekly journal of experiences and feelings of your pre-service experience

4 3 2 1 NA ECE LCE ST ALL NA

30. Create lessons plans

4 3 2 1 NA ECE LCE ST ALL NA

31. Organize a lesson plan for a substitute teacher

4 3 2 1 NA ECE LCE ST ALL NA

32. Prepare a bulletin board

4 3 2 1 NA ECE LCE ST ALL NA

33. Observe a university teacher teaching

4 3 2 1 NA ECE LCE ST ALL NA

34. Plan and conduct a major FFA activity

4 3 2 1 NA ECE LCE ST ALL NA

35. Coach a team or an individual for contest

4 3 2 1 NA ECE LCE ST ALL NA

36. Conduct an agribusiness case study or visit

4 3 2 1 NA ECE LCE ST ALL NA

37. Grade Student Record Books

4 3 2 1 NA ECE LCE ST ALL NA

38. Supervise 3 student SAE projects

4 3 2 1 NA ECE LCE ST ALL NA

39. Assist with a recruitment drive for FFA or Agriculture classes

4 3 2 1 NA ECE LCE ST ALL NA

40. Review permanent files of 5 students in your classes

4 3 2 1 NA ECE LCE ST ALL NA

41. Plan and conduct an activity in conjunction with an academic teacher involving integration of agriculture into other disciplines

4 3 2 1 NA ECE LCE ST ALL NA

42. Counsel students on career objectives

4 3 2 1 NA ECE LCE ST ALL NA

43. Hold a mock interview with a school administrator

4 3 2 1 NA ECE LCE ST ALL NA

44. Read professional journals

4 3 2 1 NA ECE LCE ST ALL NA

45. Become an active member of a professional organization

4 3 2 1 NA ECE LCE ST ALL NA

46. Write an article for the local newspaper

4 3 2 1 NA ECE LCE ST ALL NA

47. Visit a Regional Office of Education (ROE) and talk with them about their role in the educational system

4 3 2 1 NA ECE LCE ST ALL NA

48. Participated in an agriculture department registered student organization or club

4 3 2 1 NA ECE LCE ST ALL NA

49. Active member in a PanHellenic organization (AGR, CERS, FH, Sigma Alpha etc.)

4 3 2 1 NA ECE LCE ST ALL NA