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Examining how Agricultural Education Programs Place Student Teaching Interns in School Based Programs

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**Examining how Agricultural Education Programs Place Student Teaching Interns in
School Based Programs**

McKenna Sairls

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Table of Contents

Introduction.....	1
Literature Review.....	4
Methods and Materials	8
Results.....	11
Table 1	14
Table 2	15
Table 3	17
Table 4	18
Table 5	18
Table 6	19
Conclusion	20
Recommendations.....	21
References.....	22

Abstract

This study investigates the criteria and procedures involved in placing student teaching interns within school-based agricultural education (SBAE) programs across land-grant universities within the United States, employing a Modified Delphi survey design. By examining factors that influence placement decisions, this research aims to address a gap in literature as few comprehensive studies on internship placement processes in agricultural education exist. The findings highlight the significance of factors such as program quality, mentorship abilities, and preservice teacher traits in the placement process.

Introduction

Background and Need

Student teaching is the capstone experience for pre-service teachers, and it is critical for future professionals in agricultural education (Wells et al., 2019). The experience of student teaching should serve as a model for what life is like in the classroom. Dewey emphasized how experiences can be used as a tool throughout educational processes, which can positively impact an individual's long-term development and future growth (Dewey, 1938). Through student teaching, pre-service teachers are given the opportunity to model different teaching methods and theories that provides students with an ample learning experience.

The concept of student teaching differs in institutions across the United States. The process of placing pre-service teachers varies from program to program, but the goal is to place student teaching interns in school-based programs with cooperating teachers. Darling-Hammond et al. (2007) described the ideal placement in the book *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do* as:

The ideal has been a placement in which student teachers are supported by purposeful coaching from an expert cooperating teacher in the same teaching field who offers modeling, coplanning, frequent feedback, repeated opportunities to practice, and reflection upon practice while the student teacher gradually takes on more responsibility. (Darling-Hammond, 2007, p. 409)

In an in-depth study of exemplary teacher education programs, Darling-Hammond et al. (2007) noted that the programs varied greatly but all shared two common characteristics, being 'learning centered' and 'learner centered'. That is, the programs focused on helping preservice teachers master professional knowledge (learning centered) while using each student's unique

background and culture as a foundation on which to build new knowledge (learner centered) (Torres et al., 2010, p. 103). Although this describes the ideal placement and learning environment for interns, it may not reflect the standard across the U. S. This begs the question: How does the placement in school-based programs influence preservice teachers' intent to enter the profession?

Additionally, data has shown that the agricultural education profession has experienced a massive shortage. More than thirty states have reported a shortage in agriculture teachers, with a deficit close to 400, where these positions were either left unfilled or were filled by alternatively certified teachers (NAAE, 2015). Recruitment efforts such as the National Teach Ag campaign were created to help combat the agriculture teacher shortage. However, despite the National Teach Ag campaign's efforts, researchers are still left questioning what other issues are related to the shortage of agriculture teachers.

Problem Statement

The National Association of Agricultural Educators (NAAE) has tracked the widespread shortage of agriculture educators across the nation. Known causes of this shortage include: teachers retiring (approximately 200 per year), the expansion of school-based programs leading to new positions opening up (253 new positions), and the leading cause being agricultural education graduates and teachers leaving the profession (NAAE, 2015). It's possible that problems that occurred during the student teaching experience has contributed to these statistics, which, has called for a need to analyze how secondary programs select internship sites.

Purpose Statement

This project aimed to gather information about the student teaching intern placement process to make recommendations for potentially improving the placement process. The purpose

of this study was to examine the processes agricultural education teacher preparation programs across the United States follow to place student teaching interns in SBAE programs. This study was guided by the following objectives:

Research Objectives

- Determine the SBAE program, cooperating teacher, and student characteristics useful in selecting a student teaching internship site.
- Determine the best methods for gathering information about SBAE programs, cooperating teachers, and students when selecting a student teaching internship site.

Literature Review

The agricultural education profession has seen a rapid decline in teachers in the last several years. A study that was conducted to analyze the perspective of pre-service agricultural education teachers stated that historically, less than two-thirds of all newly certified agricultural education students enter the school-based agricultural education (SBAE) teaching profession (Eck et al., 2021). While many educators are trying to combat this issue, many have yet to establish the reason why. However, considering the many possibilities regarding the choice to not to teach, perhaps the experiences during the student teaching internship could potentially provide some clarity to this situation. This review of literature will explain the process of student teaching, faculty members' roles in the preparation of agricultural education students, and describe what is currently known about how student teaching interns are placed in school-based programs.

Explaining the Process of Student Teaching

Student teaching is the capstone experience for pre-service teachers (Wells et al., 2019). Student teaching serves as the clinical experience for pre-service teachers to apply what they have learned in their secondary education. However, when investigating the process of student teaching, it is important to consider what the ideal student teaching internship looks like. Darling-Hammond (2007) described the ideal student teaching internship which included pairing pre-service teachers with a cooperating teacher who acts as a mentor to guide the student teaching intern for life in the classroom, and to provide beneficial feedback. Unfortunately, not every student entering their student teaching internship experiences an ideal student teaching internship. In a recent study, six student teaching interns were monitored closely, in which only five of the interns had Curriculum for Agricultural Science Education (CASE) certifications. The

CASE curriculum refers to the enhancement of science, mathematics, and English language understanding (Wells et al., 2019). Over the course of this study, the interns were examined to explore the challenges they faced while teaching the CASE curriculum. Three general themes occurred between each of the six interns: accessibility to resources, influence of cooperating teachers, and applicability of the curriculum. Each of the interns conveyed their experience while student teaching and the use of the CASE curriculum in their student teaching internship. Some responses that stood out focused on how two of the interns struggled with gaining access to coursework materials, a perceived lack of support from their cooperating teachers, and a sense of feeling rushed (Wells et al., 2019).

Faculty Role in the Preparation of Agricultural Education Students

University faculty members play a major role in pre-service teacher development by ensuring their curriculum prepares agricultural education students to enter the classroom. The coursework that faculty present in their classes serve as the basis of how well agricultural education students will perform upon entering the classroom. Torres (2010) described how some agricultural education programs have focused their learning styles to be “learner centered” and “learning centered”. These approaches have helped programs focus on helping preservice teachers master professional knowledge while also using each student’s unique background and culture as a foundation to build new knowledge from. Although, Hainline (2021) conducted a quantitative study where collegiate agricultural education students ranging from freshman to seniors completed a series of surveys where they were asked to rank how prepared they felt for tasks related to teaching agricultural education. The results showed that students would feel more prepared to enter the classroom if they received more training on topics like advising FFA members and supervising SAE projects (Hainline, 2021).

Analyzing how Student Teaching Interns are Placed in School-Based Agricultural Education Programs

The process of placing student teaching interns in school-based agricultural education programs differs across institutions in the United States. Factors such as semester of placement and location of the school-based program take a toll in the process of placing pre-service teachers into their internships. A study conducted at Oklahoma State University analyzed agricultural education students who interned in the fall and in the spring. Although, the data collected from this study showed no significant difference in the impact of the interns' teaching ability in either semester, it was noted in the study that more students signed up to intern in the spring versus the fall (Robinson et al., 2010). Additionally, confidence in one's ability to do something plays a key role in student teaching. Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997). A study looking into how student teaching interns reported their self-efficacy categorized student interns into three groups: the emerging teacher, the self-assured teacher, and the determined teacher (Krysher et al., 2010). The researchers categorized the interns based on their survey responses. The results showed that the lowest rankings demonstrated the areas that pre-service teachers felt least confident in, such as constructing lesson plans, teaching multiple courses, and teaching multiple agriculture subjects (Krysher et al., 2010).

Summary

Even though the agricultural education profession has seen a decline in teachers in the last several years, there have been steps taken to explore the issues of teacher retention and teacher preparation. In efforts to improve teacher retention, the process of student teaching was

explained, the faculty role in agricultural education student preparation was examined, and how interns are placed in school-based programs was analyzed. Explaining the process of student teaching defined the ideal internship, however studies demonstrated that teaching interns may experience an internship where they face more challenges than learning opportunities. Faculty have defined their roles through their curriculum by striving to make their coursework learner and learning centered, but studies have also shown a push for more training opportunities to better prepare them for their role as an agriculture teacher. Analyzing student teaching interns' mental image could inform future studies determining the impact of instruction impact on the construction of teaching interns' professional identity.

Methods and Materials

This section will introduce the methodology used to collect and analyze data for this study. This study used a quantitative approach centered around collecting data from secondary agricultural education programs from around the United States through a survey with questions investigating the process of placing student teaching interns in school-based agricultural education programs (SBAE). This approach allowed for a more in-depth analysis of how other agricultural education programs form the perfect placement.

Research Design

Using a Modified Delphi survey design best suited this study. According to Hsu and Sandford (2007), the Delphi technique is well suited for this study as it is a method for consensus-building that uses a series of questionnaires to collect data from a panel of selected subjects. This design allowed for the researchers to gauge the subjects' level of importance pertaining to placement process.

The survey consisted of three rounds:

Round 1

The first round of surveys collected open-ended responses to six questions regarding the student teaching placement process and how information about the cooperating teacher, school-based program, and preservice teacher are gathered. Eleven out of the fifteen participants (73%) selected for this study participated in Round 1. The questions were placed in a Microsoft Forms questionnaire and was sent to the selected participants electronically. Demographical questions were asked during Round 1 where respondents described their role in the internship placement process, their role within their department, and how long they have been teaching in the agricultural education profession. After two weeks, the surveying period for Round 1 ended, and

the responses received from the participants were analyzed and synthesized into like-terms that would be used in Round 2.

Round 2

Round 2 began with 117 statements that were derived from the responses received in Round 1. Please review Tables 1-6 to view the statements that were distributed to the participants using Qualtrics to rate their level of agreement with each statement. Thirteen participants (86%) responded to the survey. These statements were placed in a 5-point Likert-type scale that judged the panelists' level of agreement (1 = strongly disagree to 5 = strongly agree). After the survey ended, the data was collected so the means could be calculated. According to Hsu and Sandford (2007), a mean level of 3.25 or higher was recommended, however we set the mean for each statement to 3.50 or higher to ensure adequate agreement in Round 3.

Round 3

Round 3 consisted of ninety statements that advanced from Round 2. Thirteen out of the fifteen panelists (86%) responded to the Qualtrics survey where they were asked to “agree” or “disagree” with each statement. After the surveying period concluded, the frequencies for agreeing and disagreeing with each statement were calculated for each category. Hsu and Sandford (2007) recommended that the agreement level for an item to stay be set to 70% percent.

Rigor

Methodological rigor in quantitative research refers to the soundness or precision of a study in terms of planning, data collection, analysis, and reporting (Marquart, 2017). To avoid threats to the research, the researchers implemented the following steps: created a list of agricultural education programs at land-grant universities, created a time frame for the study, and

created a strategy to combat low response rates. By taking these steps, it helped eliminate any potential risks within the study.

Population and Sampling

The target population of this study included college professors in agricultural education. Since the participants of this study must meet specific criteria, the sampling method used in this study was purposeful. Purposeful sampling involves identifying and selecting individuals or groups of individuals that are knowledgeable or experienced with a phenomenon of interest (Palinkas et al., 2013).

Instrumentation

The instrumentation that was implemented in this study consisted of using the online survey software, **Qualtrics**, to create a survey about the process of placing student teaching interns in SBAE. Although Qualtrics tends to be business-centered, their survey platform powers everything from market research projects to customer experience, product testing, employee experience and brand tracking projects (Qualtrics, 2021). The surveys that were provided to secondary agricultural education programs allowed agricultural education professors to describe the process of placing student teaching interns in SBAE that they implement in their programs. As the surveys were researcher developed, the questions were intended to gather specific information about the placement process implemented in secondary programs. The types of questions that were asked required the professors to rank their answer on a Likert-scale ranging from one to five; one being the lowest score and five being the highest. From the data collected from the surveys, the researchers were able to identify the various techniques used among other agricultural education programs while also identifying which techniques professors perceive as effective or ineffective.

Data Collection

In the Fall 2022 semester, the study was approved from the University of Arkansas Institutional Review Board to begin working with human subjects_(Protocol # 2209422594). In the spring of 2023, a list of fifteen agricultural education professors was compiled, and were emailed over the course of three months. The recruitment email had the survey link attached to it, and every two weeks over the course of the data collection period, a follow-up email was sent reminding the professors to take the survey. Once the data collection period was over, the results were downloaded from Qualtrics and converted to an Excel file. By converting the results to an Excel file allowed the researchers to infer and analyze the responses so they could compare and contrast how other secondary agricultural education programs place pre-service teachers in school-based programs.

Results

In Round 1, 117 statements were derived from the responses received from the six questions. The statements were then categorized where twenty-seven statements pertained to SBAE program characteristics, thirty statements pertained to cooperating teacher characteristics, nineteen statements pertained to preservice teacher characteristics, thirteen statements pertained to how information is gathered on SBAE programs, seventeen statements pertained to how information is gathered on cooperating teachers, and eleven statements pertained to how information is gathered on preservice teachers. These statements were sent out during the second round and asked participants to rank their level of agreement with each statement.

In Round 2, the participants reported their level of agreement for each of the 117 statements from Round 1 depending on what they find most important in regards to characteristics about the SBAE program, cooperating teacher, and the preservice teacher when

selecting internship placement sites. As Tables 1-6 includes a column dedicated to the percent level of agreement, the information collected from the respondents can be categorized. Starting with SBAE program characteristics, participants found these five characteristics as criteria when selecting placement sites: (a) SBAE program quality, (b) program engagement in the full three-circle model, (c) program's ability to host a student teacher, (d) opportunities for student engagement, and (e) agricultural content being taught. Participants found these five characteristics as criteria for cooperating teachers when selecting placement sites: (a) ability to provide mentorship, (b) ability to support a student teacher, (c) the teacher's level of engagement in the full three-circle model, (d) student teacher/mentor interactions, and (e) instructional effectiveness. Participants found these five characteristics as criteria for preservice teachers when selecting placement sites: (a) student's strengths and weaknesses, (b) student's needs, (c) personality, (d) student's background, and (e) student's ability to accept feedback.

Respondents also indicated their level of agreement for each statement regarding what they find important when gathering information about the SBAE program, cooperating teacher, and the preservice teacher when selecting placement sites. Participants found these five statements important when gathering information about SBAE programs: (a) past experiences with the program, (b) relationships with teachers, (c) input from state department of education staff, (d) input from senior faculty members, and (e) feedback from previous student teachers. Participants found these five statements important when gathering information about cooperating teachers: (a) past experiences with teachers, (b) relationships with teachers, (c) feedback from previous student teachers, (d) input from state department of education staff, and (e) input from senior faculty members. Participants found these five statements important when gathering information about preservice teachers: (a) personal interactions with students, (b) faculty

collaborate to discuss students, (c) assessing student dispositions, (d) holding planning meetings with students, and (e) evaluation of coursework.

In Round 3, participants were asked to agree or disagree to the ninety statements that advanced from Round 2. Twenty-one statements pertained to SBAE program characteristics, twenty-six statements pertained to cooperating teacher characteristics, seventeen statements pertained to preservice teacher characteristics, seven statements pertained to how information is gathered on SBAE programs, twelve statements pertained to how information is gathered on cooperating teachers, and seven statements pertained to how information is gathered on preservice teachers. Tables 1-6 contains a column for the percent agreement for each category. For SBAE program characteristics, respondents reported 100% agreement with four items while cooperating teacher and preservice teacher characteristics reported 100% agreement from respondents with fourteen and eight statements respectively. When it comes to gathering information about SBAE programs, respondents reported 100% agreement with two items. Gathering information on cooperating teachers received 100% agreement from respondents with six statements while gathering information on preservice teachers reported 100% agreement from respondents with three statements.

Table 1*Round 3 results regarding SBAE Program Characteristics as Criteria When Selecting Student**Internship Site***(n = 13)**

Item:	Round 3 % agreement
SBAE program facilities	84.60%
SBAE program location	84.60%
SBAE program quality	100.00%
Program engagement in the full 3-circle model	100.00%
Agricultural content being taught	100.00%
Pathways taught in the program	79.90%
Positive reputation of program	84.60%
The goals of the cooperating teacher and the student teacher align	92.30%
Cooperating teacher's instructional effectiveness	100.00%
Years of experience of teacher(s) in the program	69.20% ^b
SBAE program compliance with state guidelines and requirements	92.30%
Administrative support	61.50% ^b
Community support	61.50% ^b
Community involvement	61.50% ^b
Access to modern technology and equipment	69.20% ^b
Program's ability to host a student teacher	84.60%
SAE activity of the program	84.60%

FFA activity of the program	92.30%
Opportunities for student engagement	92.30%
Distance of program from student's living arrangements	61.50% ^b
Whether the program has recently hosted a student teacher	92.30%

^b This item would have been excluded from any further rounds because % agreement < 70%

Table 2

Round 3 results regarding Cooperating Teacher Characteristics as Criteria When Selecting Student Internship Site

(n = 13)

Item:	Round 3
	% agreement
Total number of years teaching	100.00%
Length of time teaching at their current school	100.00%
Personality	100.00%
The teacher's level of engagement in the full 3-circle model	92.30%
Ability to provide mentorship	100.00%
Ability to maintain a work-life balance	100.00%
Possess a valid teaching license	100.00%
Ability to support a student teacher	100.00%
Active in professional growth	100.00%
Instructional effectiveness	100.00%
Content knowledge of the teacher	100.00%

Pedagogical knowledge of the teacher	100.00%
Community support	76.90%
Involved in the community	61.50% ^b
Reputation	84.60%
Acknowledgement of strengths and weaknesses	92.30%
Active member of their state's agriculture teacher association	61.50% ^b
Active in professional growth	100.00%
Teaching methods	92.30%
Classroom management	92.30%
Diversity of content being taught	69.20% ^b
Communication skills	100.00%
Empathy	92.30%
Student teacher/mentor interactions	100.00%
Previous mentoring experience	69.20% ^b
Past experiences with the cooperating teacher	100.00%

^b This item would have been excluded from any further rounds because % agreement < 70%

Table 3

Round 3 results regarding Preservice Teacher Characteristics as Criteria When Selecting Student

Internship Site

(n = 13)

	Round 3
Item:	% agreement

Student's strengths and weaknesses	100.00%
Student's background	100.00%
Student's needs	100.00%
Ability to accept feedback	92.30%
Personality	100.00%
Location	100.00%
Housing needs	100.00%
Student's experiences with SBAE	100.00%
Student's area(s) of growth	100.00%
Classroom management capabilities	92.30%
The maturity level of the student teacher	92.30%
Student teacher/mentor interactions	92.30%
Work ethic	92.30%
Student's personal limitations and restrictions	92.30%
Academic capabilities	76.90%
Personal interests	92.30%
Student's preferences about the program characteristics	92.30%

Table 4

Round 3 results regarding Gathering Information about SBAE Programs

(n = 13)

Round 3

Item:	% agreement
Past experiences with a program	92.30%
Input from state department of education staff	69.20% ^b
Input from senior faculty members	76.90%
Students gather information through researching programs	53.85% ^b
Program visits	100.00%
Relationships with teachers	100.00%
Feedback from previous student teachers	92.30%

^b This item would have been excluded from any further rounds because % agreement < 70%

Table 5

Round 3 results regarding Gathering Information about Cooperating Teachers

(n = 13)

Round 3

Item:	% agreement
Past experiences with teachers	100.00%
Input from state department of education staff	92.30%
Classroom observations	100.00%
SBAE program visits	100.00%
Relationships with teachers	100.00%
Feedback from previous student teachers	92.30%
Input from senior faculty members	84.60%

Recommendations from state FFA staff	92.30%
Reaching out to teachers to learn more about their program	92.30%
Input from other stakeholders and previous students	92.30%
Interactions with teachers at events	100.00%
Observing teachers during FFA or other state events	100.00%

Table 6

Round 3 results regarding Gathering Information about Preservice Teachers

(n = 13)

Item:	Round 3
	% agreement
Personal interactions with students	100.00%
Assessing student dispositions	100.00%
Holding planning meetings with students	92.30%
Evaluation of coursework	92.30%
Program applications	84.60%
Faculty collaborate to discuss students	100.00%
Early field experiences	92.30%

Conclusion

This study employed a quantitative approach, utilizing a Modified Delphi survey design, to investigate the criteria and processes involved in placing student teaching interns within school-based agricultural education (SBAE) programs across the United States. Through three rounds of surveys, insights were gathered from agricultural education professors regarding the selection of internship placement sites, with a focus on characteristics of SBAE programs, cooperating teachers, and preservice teachers.

The findings from this study revealed several key themes regarding the criteria deemed important by participants when selecting internship placement sites. Notably, SBAE program quality, the ability to engage in the full three-circle model, and opportunities for student engagement emerged as crucial factors in selecting placement sites. Similarly, characteristics such as mentorship abilities, engagement in the three-circle model, and instructional effectiveness were highlighted as significant considerations when evaluating cooperating teachers. For preservice teachers, factors such as student strengths and weaknesses, personality, and ability to accept feedback were emphasized as important criteria.

Furthermore, the study identified various methods employed by agricultural education programs to gather information about SBAE programs, cooperating teachers, and preservice teachers when selecting placement sites. Past experiences with the program, relationships with teachers, and feedback from previous student teachers were among the commonly cited approaches.

Overall, the data collected in this study shed light on the complexities involved in the placement process for agricultural education interns, highlighting the multifaceted considerations and practices employed by programs across the country.

Recommendations

To enhance internship placements, agricultural education programs should focus on collaboration and data-driven decisions. By sharing successful strategies and working together, programs can improve the quality of internship placements. Additionally, collecting feedback from preservice and cooperating teachers can help programs make informed decisions about placements and identify areas for improvement.

For future research, exploring the connection between internship experiences and teacher retention rates in agricultural education could provide valuable insights into strategies for retaining teachers in the field. Furthermore, conducting comparative analyses of placement outcomes across different programs can help identify effective practices and areas for improvement, ensuring fairness and effectiveness in the placement process.

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