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Lessons Learned: Describing the Preservice Preparation Experiences of Early-Career Award-Winning Agricultural Educators

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Abstract

This study was designed to describe the experiences of National Association of Agricultural Educators (NAAE) Outstanding Young Member award winners. These teachers were asked about the concepts that they were most and least prepared for upon entering the teaching field. A modified Delphi method was used to collect data utilizing three rounds of researcher-developed questionnaires. Round one included open-ended and demographic-type questions. Rounds two and three were constructed using panelists' answers from previous rounds and included Likert-type, five-point rating scales. These award winning teachers felt most prepared to: 1) teach animal science, 2) provide classroom instruction, and 3) teach introductory lessons or units. They felt least prepared to: 1) plan for retirement and 2) manage work-life balance. The findings of this study may provide a framework for teacher education programs and teacher in-service workshops that will aid in more comprehensive training and development of future agricultural education teachers.

Introduction

New agriculture teachers are facing a well-documented battle upon entering the profession (Camp, Broyles, & Skelton, 2002; Duncan, Ricketts, Peake, & Uesseler, 2006; Joerger, 2002; Layfield & Dobbins, 2002; Myers, Dyer, & Washburn, 2005; Roberts & Dyer, 2004; Stair, Warner, & Moore, 2012; Washburn & Dyer, 2006). As novice educators navigate through the first few years in the classroom, they encounter troublesome issues including managing time, organizing and planning FFA chapter events and activities, and dealing with student discipline (Myers, Dyer, & Washburn, 2005). If not addressed, these problems may have the potential to make new teachers feel overwhelmed, ineffective, and eventually seek employment opportunities elsewhere (Bennett, Iverson, Rohs, Langone, & Edwards, 2002). The field of agricultural education is facing shortages (Foster, Lawver, & Smith, 2014), and cannot afford for those who have started in the profession to change their minds and leave, which increases the urgency in addressing the concerns of early-career agricultural educators.

The in-service needs of new agricultural educators have been previously examined in an effort to inform teacher preparation programs of potential topics to add or strengthen in preservice instruction (Birkenholz & Harbstreit, 1987; Duncan, Ricketts, Peake, & Uesseler, 2006; Edwards & Briers, 1999; Garton & Chung, 1996; Joerger, 2002; Layfield & Dobbins, 2002; Mundt & Connors, 1999; Roberts & Dyer, 2004; Washburn & Dyer, 2006). The need for this study stems from the desire to collect current data related to the specific preparation needs of early-career agricultural educators in the United States.

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In order to describe new agricultural educators' perceived strengths and weaknesses in their preservice preparation programs, we solicited the knowledge and opinions of the 2010-2014 National Association of Agricultural Educators (NAAE) Outstanding Young Member regional award winners. These teachers were peer-rated as exceptional early-career agriculture teachers from each of the NAAE regions. We sought input from these individuals regarding their preparation and transition to the classroom. By examining the thoughts regarding preparation of new teachers who had persevered through the difficult transition from teacher candidate to teacher successfully, we sought to find information related to how teacher preparation programs had played a role in these individuals' success, and determine future directions for agricultural education preservice training.

Challenges of New Agricultural Educators

Because of the extensive amount of work with which an agriculture teacher is tasked (Torres, Ulmer, & Ashenbrener, 2008), early-career teachers risk becoming overwhelmed and may experience a type of reality-shock in the transition from student teacher to full-time teacher (Veenman, 1984). An examination of this topic requires a review of literature related to challenges of early-career agricultural educators, along with an examination of in-service needs of novice agricultural educators.

The body of literature lends evidence for a strong case related to the time management challenges faced by early-career agriculture teachers. Time management has been noted as a common problem reported by early-career teachers (Boone & Boone, 2009; Lambert, Henry, & Tummons, 2011; Murray, Flowers, Croom, & Wilson, 2011; Torres, Ulmer, & Aschenbrener, 2008; Touchstone, 2015). In a study of award winning agriculture teachers by Mundt and Connors (1999), three out of eight early agricultural educator problems identified were associated with time management. Understanding more about how prepared early-career agricultural education teachers feel in regard to time management may shed light on this noted concern, and allow teacher educators to determine if additional preparation in this area is warranted.

Although time management is prevalent in the literature, other challenges have been highlighted for beginning agricultural educators. A study of novice agricultural educators by Talbert, Camp, and Heath-Camp (1994) revealed that respondents, who differed in both gender and type of preparation, reported issues with student discipline and isolation from co-workers. They also faced problems including lesson planning and classroom/laboratory management (Talbert, et. al., 1994). Myers, Dyer, and Washburn (2005) conducted a Delphi study which yielded 11 major issues facing these early-career agriculture teachers. The top five problems included organizing FFA chapter events and activities, managing student discipline in the classroom, organizing effective alumni chapters, organizing effective advisory committees, and recruiting and retaining alumni members (Myers et. al, 2005).

Determining Needs of Early-Career Agricultural Educators

Determining the in-service needs of preservice teachers through descriptive measures has also revealed areas for growth in teacher preparation programs. Layfield and Dobbins (2002) compared in-service needs of both early and established agricultural educators and concluded that needs differ based on experience level. Among the topics suggested for early-career educators were preparing for Career Development Events (CDEs), developing student supervised agricultural experiences (SAEs), and developing adult education programs and advisory committees (Layfield & Dobbins, 2002). Touchstone (2015) outlined the in-service needs for beginning agricultural educators in Idaho to include training in time management, classroom management, and program

funding. Researchers have also recommended a higher need for in-service education in the fields of instruction, program planning, development and evaluation, and program administration (Garton & Chung, 1996; Joerger & Boettcher, 2000; Stair, Warner, & Moore, 2012). Although many needs assessments of early-career agricultural educators have been conducted, many of them are limited in scope and examine only a single state or region, rather than providing a national-level view. This study was developed in an effort to provide a national view of the preparation for new agricultural educators who had successfully navigated their first few years in the classroom.

There may be challenges and in-service needs of novice teachers which are unrealistic for teacher preparation program to address, and there is an expectation that a portion of learning how to be an effective teacher comes from in-service experience (Lytle, 2000). Describing the perceived preparation levels of early-career agricultural educators may provide insight into challenges and areas which new teachers feel additional training during teacher preparation would have been helpful to their in-service experience. By conducting current research into the perceived preparation levels of early-career agricultural educators on a national level, teacher educators can begin to evaluate teacher education programs and implement positive changes to give in-service support in areas where teachers feel less prepared.

Theoretical Foundation and Conceptual Framework

The framework for this study was based on Chapman's (1984) model of teacher retention. We conceptually adapted and simplified Chapman's (1984) model to conform more closely with the subjects and parameters of this study. This portion of a larger study was designed to examine only the adequacy of teacher preparation program influence mentioned in Chapman's (1984) complete framework. Our revised conceptual model for teacher retention is shown in Figure 1.

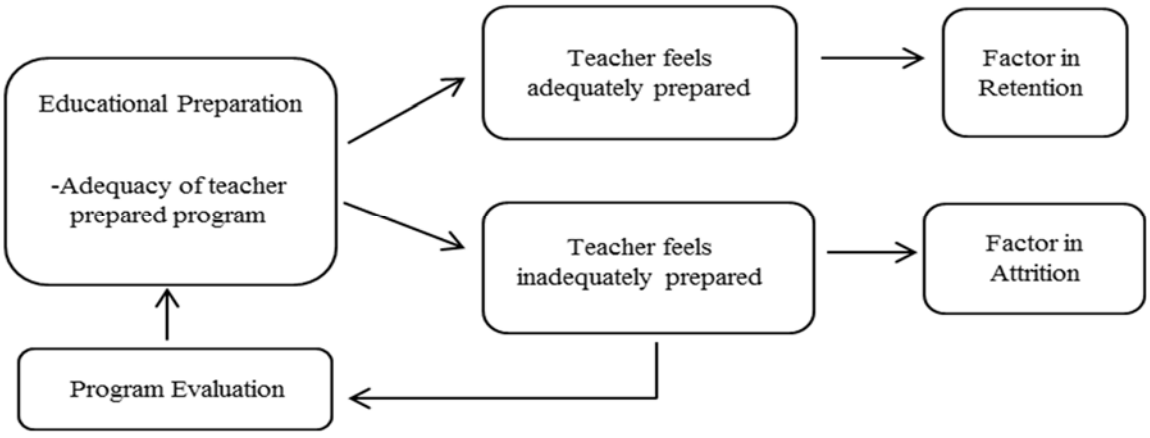

Figure 1. A conceptual model of the influences associated with teacher retention and attrition, adapted from Chapman (1984).

The model depicts the perceived adequacy of preparation as a potential contributing factor in the decision to remain in or leave the teaching profession. According to Chapman (1984), if a teacher feels adequately prepared in a subject, he or she may have a better chance of remaining in the teaching profession; if he or she feels inadequately prepared, he or she is faced with the choice to seek additional in-service preparation and, if corrective in-service training is not available, he or

she may choose to leave the profession. Looking at preparation experiences for teachers who chose to stay in the profession, and comparing the preservice experience of successful teachers to those who chose to leave teaching may provide valuable insight into practices which impact early-career retention and job satisfaction.

Purpose and Objectives

The purpose of this study was to describe the specific teaching activities early-career agriculture teacher award winners felt prepared and unprepared for through their teacher preparation program. To accomplish this purpose, the following research objectives were employed:

1. Identify demographic characteristics of NAAE Outstanding Young Member award winners from 2010-2014.
2. Describe the aspects of teaching agriculture early-career teacher award winners reported being most prepared for by their teacher preparation program.
3. Describe the aspects of teaching agriculture early-career teacher award winners reported being least prepared for by their teacher preparation program.

Methods

This descriptive study employed the use of Delphi survey techniques using three rounds of researcher-developed questionnaires. The basic Delphi procedures as outlined by Hsu and Sandford (2007) were adapted to meet the needs of this study and allowed for online data collection. Delphi is noted to be highly effective at obtaining a consensus among a sample group of purposively selected individuals (Stufflebeam, McCormick, Binkerhoff, & Nelson, 1985).

Round one of the series of questionnaires included open-ended and demographic questions. The questionnaires from rounds two and three were constructed using panelists' answers from previous rounds using Likert-type five-point rating scales designed to determine a level of agreement determined *a priori*.

Purposeful sampling was used to identify a group of experts who served as the Delphi panel, in line with the recommendation to select a panel which meets the needs of the study (Delbecq, Van de Ven, & Guftafson, 1975; Duffield, 1993; Fink, Kosecoff, Chassin, & Brook, 1991). The Delphi panel in this study included agriculture teachers who received the National Association of Agricultural Educators Outstanding Young Member award as a regional winner from 2010-2014. The Outstanding Young Member (OYM) award is given annually to one NAAE member who has completed less than five years of teaching from each of the six NAAE regions. Winners are determined through peer evaluation of a dossier related to a candidate's effectiveness in instruction, teaching philosophy, experiential learning, student organizations, partnerships, marketing, and professional growth.

We determined that the OYM winners would have the expertise necessary to understand topics that new agricultural education teachers felt prepared and unprepared for upon entering the profession. Award recipients have demonstrated positive actions in many of the activities deemed necessary to becoming an effective agricultural educator, and have been recognized by their peers as experts in the field of early-career agricultural education. We understand that these experts are not representative of the total population of early-career agricultural educators, and caution must be taken in generalizing the results of this study to a broader scope of individuals.

Potential subjects were identified using the publicly available list of 2010-2014 OYM award winners listed on the NAAE website. An initial email requesting participation was sent to all teachers on the list. A total of $N = 29$ OYM award winners were identified for this study, as one region did not award a winner in 2012. Round one achieved a response rate of 79.3% ($n = 23$). Of the 23 respondents in round one, 100% completed the questionnaire in round two ($n = 23$) and 95.6% responded in round three ($n = 22$). The tailored design method (Dillman, Smyth, & Christian, 2009) was used in distributing and collecting survey data. Questionnaires for each round were distributed with Qualtrics and data were analyzed following the methods described by Hsu and Stanford (2007).

Round One

Round one included demographic questions asking respondents to report age, sex, number of teachers in the agricultural education program, size of the school, number of years teaching, number of different programs taught at, highest degree obtained, and type of certification received. The questionnaire also included five open-ended questions, two of which are addressed and were directly related to the topic of determining teacher preparation adequacy. The foundation teacher preparation questions included: "*In terms of your teacher preparation program, what aspects of teaching agriculture did you feel most prepared for*?" and "*In terms of your teacher preparation program, what aspects of teaching agriculture did you feel least prepared for?*"

Round Two

The round two questionnaire was developed based on responses from round one. Responses from round one were condensed to remove duplicate and redundant responses prior to distribution of the round two questionnaires, per the suggestion of Hsu and Stanford (2007). Participants in this round were asked to rank their level of agreement for each statement on a five-point summated scale (1 = Strongly Disagree; 2 = Disagree; 3 = Uncertain; 4 = Agree; 5 = Strongly Agree). Panelists were given the opportunity to expand their answers, provide clarity, or suggest revisions at the end of each question. We established *a priori* that any item receiving a mean score of 3.75 or greater (more than 75% of panelists ranking "agree" or "strongly agree") would be considered to have reached a level of consensus and therefore would not need to be included in the third and final questionnaire. This level of consensus has been previously established by Delphi studies in agricultural education to be an acceptable mean score to classify a statement as meeting consensus (Buriak & Shinn, 1989; Ramsey & Edwards, 2011).

Round Three

Following the guidelines of Hsu and Stanford (2007), the round three questionnaire included only items which failed to reach consensus during round two. Participants in this round were asked to rate their level of agreement for statements using the same five-point scale utilized in round two (Hsu & Stanford, 2007). It was determined that items which failed to reach a mean score of $M = 3.75$ had not reached consensus.

Results

Demographic information was collected from the respondents during round one. Almost all of the respondents in this study were between 26-30 years of age ($n = 11$) or 31-35 years of age ($n = 10$). A majority of the participants were female ($n = 19$) and had received a Master's degree ($n = 14$). Respondents ranged from having no teaching partners to working in a program with five or more agriculture teachers. Many of the respondents reported being either the sole agriculture teacher in

their program (n = 7) or working in a two-teacher department (n = 9). Of the 23 total participants in this study, 91.3% (n = 21) received their teaching certification through a traditional teacher preparation program. Complete demographic information is shown in Table 1.

Table 1

Demographic Variables. Selected Teacher Characteristics (n = 23)

Demographic Variables	*f*	*%*
Age		
26-30	11	47.80
31-35	10	43.50
36-40	2	8.70
Gender		
Male	4	17.40
Female	19	82.60
Highest Degree Obtained		
Bachelor's	7	30.40
Master's	14	61.00
Educational Specialist	0	0.00
Doctoral	1	4.30
Other	1	4.30
Number of Agriculture Teachers in Current Program		
1	7	30.40
2	9	39.10
3	4	17.40
4	1	4.30
5 or more	2	8.70
Number of Students in School		
<500	8	34.90
500-999	7	30.40
1,000-1,499	3	13.00
1,500-2,000	3	13.00
>2,000	2	8.70
Type of Teacher Certification		
Traditionally Certified	21	91.30
Alternatively Certified	2	8.70

Table 1 (continued)

Demographic Variables. Selected Teacher Characteristics (n = 23)

Demographic Variables	*f*	%
Years of Teaching Agriculture Completed		
1-2	0	0.00
3-4	2	8.70
5-6	9	39.10
7-8	6	26.10
9-10	6	26.10
Racial/Ethnic Heritage		
Non-Hispanic White	22	95.70
Black, Afro-Caribbean, or African America	0	0.00
Latino or Hispanic American	1	4.30
East Asian or Asian American	0	0.00
Number of Schools Taught at as an Agriculture Teacher		
1	10	43.50
2	10	43.50
3	2	8.70
4	1	4.30

Data collection resulted in round one yielded 47 statements for the question "*In terms of your teacher preparation program, what aspects of teaching agriculture did you feel most prepared for*?" These 47 statements were individually analyzed. Duplicate and like statements were combined, and compound statements were separated, resulting in 18 statements retained for round two. Round two survey analysis revealed four items which reached the established mean score for consensus. The remaining 14 statements were redistributed to panel experts in round three, none of which reached a level of consensus for round three. The 18 statements for rounds two and three are shown in Table 2.

Table 2

Aspects of Teaching Agriculture OYM Award Winners Reported As Most Prepared for (n = 23)

Factors Most Prepared For	*M*
Teaching Animal Science[a]	4.17
Classroom instruction[a]	3.96
Introductory lessons/units[a]	3.87
Developing curriculum (Writing lesson plans)[a]	3.78
Teaching FFA[b]	3.61
Differentiated instruction	3.43
Networking	3.43
Classroom management	3.22
Basic agricultural mechanics	3.09
Teaching multicultural students	2.87
Teaching high-level concepts	2.83
Understanding complexities of being an agriculture teacher	2.83
Inquiry-based learning	2.78
Teaching Horticulture	2.78
Time management in and out of classroom	2.65
Completing duties that take place outside of class time	2.52
Teaching Forestry	2.30
Teaching Wildlife	2.30

Note. Scale: "1" = "Strongly Disagree," "2" = "Disagree," "3" = "Neither Agree nor Disagree," "4" = "Agree," "5" = "Strongly Agree."
[a] Statements which reached consensus after round two
[b] Statement reached consensus after round three

With regard to the question "*In terms of your teacher preparation program, what aspects of teaching agriculture did you feel least prepared for?*" round one resulted in the identification of 56 statements which were analyzed and condensed to 35 statements for round two. Of the 35 statements examined during round two, only two reached consensus. The remaining 33 statements were distributed for round three, none reached a consensus. The statements related to this topic are shown in Table 3.

Table 3

Aspects of Teaching Agriculture OYM Award Winners Reported As Least Prepared for (n = 23)

Factors Least Prepared For	*M*
Planning for retirement[a]	4.13
Work-life balance[a]	4.13
Filling out applications (Ex: proficiencies and state degrees)	3.74
Management of equipment	3.74
Workload	3.74
Dealing with finances	3.70
Paperwork	3.70
Renewal process	3.70
How reimbursement funding works	3.65
Managing a greenhouse	3.61
Teaching SAEs	3.61
Agricultural mechanics	3.26
Recruitment of diverse students	3.26
Teacher evaluations (by principal/administrator)	3.22
Time management	3.22
Communicating with parents	3.13
Following school approved course outlines	3.09
Managing a chapter	3.09
Communicating with administration	3.04
Following a textbook/approved outline	3.00
Management of a laboratory area	3.00
Career preparations	2.96
Communicating with teaching partner(s)	2.96
Record-keeping	2.96
Scheduling lessons	2.96
Classroom management	2.91
Laboratory courses	2.91
Differentiated instruction	2.83
Working with special needs students	2.83
Importance of marketing the agriculture program	2.70

Table 3 (continued)

Aspects of Teaching Agriculture OYM Award Winners Reported As Least Prepared for (n = 23)

Factors Least Prepared For	*M*
Planning activities for topics taught	2.65
Making lessons hands-on	2.43
Certification requirements	2.39
Teaching methodology	2.35
Teaching FFA	2.35

Note: Scale: "1" = "Strongly Disagree," "2" = "Disagree," "3" = "Neither Agree nor Disagree," "4" = "Agree," "5" = "Strongly Agree."

[a] Statements which reached consensus after round two.

Conclusions and Recommendations

Several conclusions can be drawn from this study which warrant further discussion. The demographic information from this study includes several interesting findings. Perhaps the most encouraging finding is that all of the OYM winners from 2010-2014 were still teaching agricultural education. This conclusion brings several questions for consideration: Is there something about their success which has led to their persistence in the classroom? Did the recognition they received as a successful young teacher help motivate them to remain in the profession? Although determining the influence of awards on new teachers was not directly tied to the purpose of this study, it is interesting to note the resilience of this group of experts. Future research on the role of awards and recognition on new teacher attrition may help shed light on this interesting finding.

Nearly 75% of the OYM member respondents were female. With the growing number of females in the profession, it would be expected that the percentage of female award recipients would increase, however, the portion of new agricultural educators who are female is not likely to be at three-quarters of the total population. Is there a reason that females are more awarded than their early-career male counterparts? Are equal numbers of males and females seeking the NAAE Outstanding Young Member Award? The large discrepancy in gender of winners certainly warrants further investigation.

Another interesting finding from the demographic information is the high percentage of OYM recipients who had attained advanced degrees. More than 60% of the panel of experts had earned a master's degree. It is promising that excellent novice agriculture teachers are pursuing additional opportunities for learning. There may be something about this finding which relates to their earning a OYM award. Novice teachers who are willing to pursue advanced degrees are often more likely to feel confident in their teaching abilities (Darling-Hammond & Bransford, 2007). This increased confidence may have helped them feel more comfortable in applying for a teaching award, or may have influenced their teaching abilities in the areas related to the OYM award metrics. Future research related to the differences in novice teachers based on the pursuit of advanced degrees may help researchers understand the role of continuing education on novice agricultural educator performance.

Based on the findings of this study, teacher preparation programs are providing adequate information on the subjects of teaching animal science, teaching FFA, classroom instruction,

introductory lessons and units, and developing curriculum. Dobbins and Camp (2003) reported the need for more instruction in curriculum development, teaching methods, and teaching techniques. The findings of this study, indicate a potential shift in the in-service needs of early-career teachers since that time, as the panel experts reported being adequately prepared by their teacher training programs in teaching related tasks. It is an encouraging that, at least for some of the most successful young agriculture teachers, their preparation allowed them to feel as though they could develop and present lessons to their students.

This study examined only the preparation views of teachers who have been shown to be successful novice agricultural educators. It is possible that their overall success in the field is related to their belief that they were well prepared as classroom instructors. Myers et. al, (2005) identified major issues facing early-career teachers. Two of their top issues faced by novice teachers were organizing FFA chapter events and activities and classroom management. According to our panel, teaching FFA and classroom management were concepts they felt prepared for entering the classroom. The role of self-efficacy in effective teaching should continue to be examined, including the relationship between self-efficacy and novice teaching awards. It is highly unlikely that those who feel less efficacious about their teaching would apply for the OYM award, regardless of their actual abilities.

A comparison of the reported classroom teaching preparation of novice agricultural educators who have excelled in the profession in their early years and those who have struggled or left the profession may provide some insight into the role classroom teaching preparation plays in overall agricultural educator performance. The OYM winners are those who have been able to navigate the difficulties of the new agriculture teacher experience and persist through the first few years. It may be more telling to examine the pitfalls experienced by those who have left, especially the pitfalls which may have contributed to decisions to leave the profession.

As the OYM winners come from different regions and multiple preparation institutions, their preparation experiences likely varied. This could be the reason that reaching a consensus on topics related to preparation was difficult. It also lends some legitimacy to those items on which this nationally representative panel experts were able to reach consensus. According to this panel of experts, agricultural education teacher preparation programs as a whole are providing adequate levels of preparation to early-career educators in instructing animal science courses and performing the basic tasks associated with teaching. This contradicts Talbert et. al, (1994) that reported beginning agriculture teachers faced problems with lesson planning and classroom/lab management. It also lends some legitimacy to those items which this nationally representative panel experts were able to reach consensus on.

With regard to the universally agreed upon items, OYM winners felt least prepared in managing work life balance, which is a reflection of the well-documented struggle early-career agricultural educators face with time management (Boone & Boone, 2009; Lambert, Henry, & Tummons, 2011; Murray, Flowers, Croom, & Wilson, 2011; Mundt & Connors, 1999; Torres, Ulmer, & Aschenbrener, 2008; Touchstone, 2015). It appears that even those novice agriculture teachers who are recognized as effective still struggle with managing the requirements on their time. This group echoes the sentiment that new teachers desire assistance in understanding how to effectively balance job responsibilities from a time management standpoint. Myers et. al, (2005) and Murray et. al, (2011) found that a majority of agriculture teachers reported struggling to balance their personal and professional lives. Teacher education programs as well as state agricultural education staff should continue preservice and in-service opportunities to provide agricultural education teachers with the skills to achieve balance in their personal and professional lives.

This study reveals several areas for future research. First, it would be interesting to examine the teacher preparation adequacy through a panel of early-career agricultural educators who have decided to leave the profession. This may yield different topics than those who have had successful interactions as a new teacher, and may give even more information to teacher preparation programs who are looking to increase retention among new teachers.

Second, it is recommended that each teacher preparation program replicate this study using cohorts of students from their own institution. This targeted examination would serve as a more focused assessment of teacher preparation adequacy for specific teacher preparation programs. Institutional needs assessments could be compiled to compare areas where each institution excels. Knowing what each institution does well could allow sharing of best practices between institutions, as we work together to provide the best possible pre-service education for agricultural educators.

Teacher preparation programs are tasked with the challenge of adequately preparing the students to enter a remarkably challenging profession. Understanding how prepared early-career agricultural educators were in certain areas could help teacher preparation programs as they prepare the next generation of agricultural educators. Conversely, understanding the perceptions of early career teachers who left the profession or who struggled to be successful might shed light on many teaching efficacy and teacher attrition issues in agricultural education. Further investigation is required to answer these questions.

Another venue for future research is to go beyond the descriptive investigation of demographic variables and identify relationships between prior experiences and the role they play in teacher self-efficacy and success which may lead to early career awards. Were these award winning teachers also former state FFA officers? Where they a member of a state winning career development event team? Was their agriculture teacher an award winning/recognized teacher in the agricultural education profession? This line of inquiry, whether it be quantitative or qualitative, may aid in developing a profile for future successful agricultural education teachers.

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