Preservice Teachers' Perceptions of Important Elements of the Student Teaching Experience

Abstract

The student teaching experience is often an important capstone experience of teacher preparatory programs. Student teaching is designed to provide college students who are preparing to be educators with experience in an actual classroom while supervised by a certified teacher. The purpose of this study was to determine preservice teachers' perceptions of important elements of the student teaching experience both before and after the student teaching experience. The preservice teachers perceived the most important element of the student teaching experience was the cooperating teacher/student teacher relationship. Additionally, there was a negative change in the perceived level of importance for all students to have an SAE requirement, with accurate record books and diversity within the students' SAEs from much importance to medium importance. When placing preservice teachers for the student teaching internship, teacher educators might consider placing a higher emphasis on the cooperating teacher/student teacher relationships. Secondly, when placing preservice teachers for the student teaching internship, teacher educators could choose internship sites that emphasize SAE programs and have diverse facilities. Finally, we recommend future research could be conducted to further explore the role of the cooperating teacher and the important aspects of the cooperating teacher/student teacher relationship.

***Keywords*:** student teaching experience; preservice teachers; internship; cooperating teacher; perceptions

Introduction

The student teaching experience is one of the most impactful components of any teacher preparatory program (Miller & Wilson, 2010). Deeds et al. (1991) claimed student teaching is critical in the development of future agriculture educators. Further, Kasperbauer and Roberts (2007) purported the student teaching experience directly affects the preservice teacher's point of view and approach to a future in agricultural education. Therefore, it is crucial that the student teaching experience is constructive as well as advantageous.

Student teaching is designed to provide college students who are preparing to be educators with experience in an actual classroom while supervised by a certified teacher (Ronfeldt & Reininger, 2012). In agricultural teacher education programs, this includes practical experience in overseeing classroom and laboratory instruction, student leadership development, and Supervised Agricultural Experience (SAE) programs (Torres et al., 2008). It is beneficial to ensure the most important and gainful elements are taken into consideration and incorporated when planning for the student teaching experience. Student teaching is often considered the most important component in the development and education of future teachers; however, it is also considered the hardest to understand (Valencia et al., 2009). In the field of agricultural education, the difficulty of understanding the student teaching experience could be attributed to the multitude of facets within the experience. Preservice teachers are gaining hands-on practice in instructional delivery alongside many other components of agricultural education. Such experiences include in planning for instruction, classroom and laboratory management, program management, coaching Career Development Events (CDE) teams, overseeing SAE programs, and maintaining a relationship with the cooperating teacher.

Roberts (2006a) suggested the cooperating teacher has an immense impact on the value of the experience. In a study by Edwards and Briers (2001), cooperating teachers found the relationship between student teachers and cooperating teachers to be highly important. Other researchers concur and have found

that preservice teachers also perceive the relationship with their cooperating teacher to be among the most important elements of student teaching (Harlin et al., 2002; Young & Edwards, 2006). According to Martin and Yoder (1985), a successful student teaching experience greatly relies on the ability of the cooperating teacher to provide a supervisory climate and educational leadership. A constructive cooperating teacher should have adequate content knowledge, classroom management skills, effective teaching skills, and success in facilitating all three components (classroom/laboratory instruction, FFA, and SAE) of an agricultural education program (Roberts, 2006a).

Furthermore, a cooperating teacher must be able to provide adequate support and encouragement (DeMoulin, 1993). McKim and Velez (2016) claimed cooperating teachers could enhance the self-efficacy of preservice teachers, or their belief in their own teaching capabilities, by providing them with encouraging words before taking on a task or teaching a lesson. According to DeMoulin (1993), preservice teachers should "come away from the student teaching experience with a positive attitude toward their chosen profession" (p. 160), and people with increased self-efficacy tend to have more positive outlooks on themselves and their work. Therefore, preservice teachers with a stronger sense of self-efficacy would have a more positive attitude toward a career in agricultural education. While conducting a study on developing self-efficacy, McKim and Velez (2017) found a connection between additional leadership opportunities and preservice teachers' increased confidence in their leadership capabilities. The authors suggested the opportunity to successfully complete leadership tasks should be embedded in the student teaching experience. These tasks included facilitating FFA events, training a CDE team, and overseeing SAE programs, all of which are typically included in the student teaching experience (Paulsen et al., 2016; Robinson et al., 2010; Torres et al., 2008). FFA, CDE, and SAE activities have also been perceived as relevant student teaching activities by university supervisors (Paulsen et al., 2016).

In a study on the distribution of the workload of agriculture teachers, Torres et al. (2008) examined how preservice teachers spent their time during the student teaching experience. The preservice teachers were asked to reflect in weekly journals and keep a record of how many hours they spent in twelve different teaching roles, including observation, instruction preparation, classroom/laboratory teaching, laboratory preparation, grading students' work, program management, professional activities, overseeing SAE programs, facilitating FFA activities, CDE preparation, and adult education. The preservice teachers kept record of their time spent for fifteen weeks. In that time, Torres et al. (2008) found preservice teachers spent most of their time (61%) on planning and instruction and spent the least amount of time on adult education. Relatedly, Edwards and Briers (2001) found cooperating teachers perceived a well-rounded program (classroom/laboratory instruction, FFA, and SAE) to be a highly important component of the student teaching experience. However, daily systematic instruction was found to be the most important among the three program components (Edwards & Briers, 2001; Smalley et al., 2015). Further, Smalley et al. (2015) found preservice teachers believed planning for classroom instruction was the most relevant activity during the student teaching experience.

Harlin et al. (2002) conducted a study to compare thirty-six preservice teachers' perceptions of the important elements of the student teaching experience both before and after eleven weeks of student teaching. The preservice teachers were given a questionnaire to identify what they perceived to be the level of importance of 34 elements of the student teaching experience, which were essentially grouped into five major areas. The major areas were (a) classroom and laboratory instruction, (b) SAE programs, (c) student leadership development (FFA), (d) school and community relationships, and (e) cooperating teacher-student teacher relationships (Harlin et al., 2002). Harlin et al. (2002) found there was change in the preservice teachers' perceived importance of the student teaching experience elements. Preservice teachers' perceived importance of classroom and laboratory instruction and supervised agricultural experience programs decreased, while their perception of the level of importance of school and community relationships increased. However, they found that the preservice teachers believed the relationship between

the cooperating teacher and student teacher to be the highest importance both pre- and post-experience (Harlin et al., 2002).

Young and Edwards (2006) conducted a similar study with a different population using a questionnaire with the same major areas and elements as Harlin et al. (2002). Congruent to the findings of Harlin et al. (2002), the major area that was perceived to be of highest importance both before and after the student teaching experience was the cooperating teacher and student teacher relationship. The perceived level of importance of the school and community relationships area decreased, while the perceived level of importance of classroom and laboratory instruction increased. Harlin et al. (2002), as well as Young and Edwards (2006), recommended that the study of preservice teachers' perceived importance of the student teaching experience elements be continued to establish their relevance and improve the effectiveness of teacher preparatory programs. The initial findings by the aforementioned researchers are useful for developing impactful student teaching experiences. Therefore, this study aims to further the previous research through replication with a population of preservice teachers at the University of Florida.

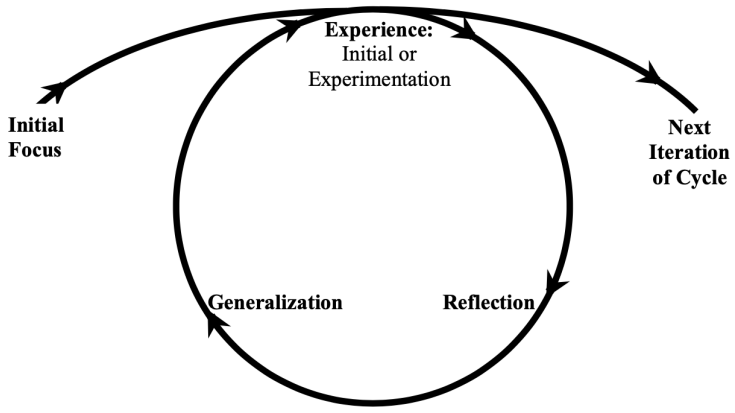
Theoretical/Conceptual Framework

This study was framed using experiential learning theory, which suggests that learning is a process and "ideas are formed and re-formed through experience" (Kolb, 1984, p. 26). Dewey (1938) proposed that the quality of an experience "can be judged only on the ground of what it moves toward and into" (p. 38). Each experience a person encounters alters the person in some way, and in turn, influences future experiences. Therefore, learning can be viewed as an endless process as opposed to a single product. Kolb (1984) proposed that effective learning occurs when a person has the ability to participate in new experiences, reflect on new experiences from different perspectives, generalize their observations and form logical theories, and apply the formed theories to new situations. Kolb (1984) also suggested the learning process is split into two dimensions, with concrete experiences and abstract conceptualization in one dimension and active experimentation and reflective observation in the other. Given that it would be difficult to exercise each of the four aforementioned abilities simultaneously, the learner moves within the dimensions.

Roberts' (2006b) model of the experiential learning process (Figure 1) described experiential learning as "ongoing in a spiral-like pattern" (p. 22). The process begins with the initial focus of the learner and the initial experience. From there, the learner reflects upon their experience. Since new experiences and transferred knowledge are often impacted by prior experiences, the reflection process enables the learner to apply new knowledge to future situations. After the reflection process, the learner creates generalizations based on their initial experience. Those generalizations are then tested through subsequent experiences, or experimentation, leading to further reflection, refined generalizations, and so on (Roberts, 2006b).

Figure 1

Roberts' (2006b) Model of the Experiential Learning Process



Joplin (1981) defined a continuum of experiences ranging from "mini" to "maxi" in duration and scope. For the purpose of this study, the semester of student teaching is defined as a macrolevel experience. Preservice teachers approach the student teaching experience with knowledge and skills that have been acquired through prior experiences and coursework. They participate in the student teaching experience, reflect on it, generalize, and apply what they have learned to subsequent tasks, such as beginning a teaching career. Furthermore, there are many new experiences within the student teaching experience. With each new microlevel experience (e.g., teaching a lesson, coaching a CDE team, supervising a SAE program, participating in program management activities), the process of experiential learning occurs (Roberts, 2006b). Through reflection and generalization, the preservice teachers can determine which micro-experiences, or elements of student teaching, are the most relevant and efficacy-building in preparing them to be agricultural educators (Krysher et al., 2012; Roberts, 2006b).

Based on the theory of experiential learning and Roberts' (2006b) model of the experiential learning process, as preservice teachers experience new situations in the role of the teacher, they reflect, form generalizations, transform them into knowledge, and carry it over to the next experience. Therefore, each experience has an impact on the next. Since experiential learning is an on-going cycle, preservice teachers' perceptions of the most important elements of the student teaching experience could be shaped or changed as they experience each one.

Purpose and Objectives

The purpose of this descriptive study was to determine preservice teachers' perceptions of important elements of the student teaching experience both before and after the student teaching experience. This study was guided by three research objectives:

1. Determine the preservice teachers' perceptions of the important elements of the student teaching experience prior to the 14-week field experience;
2. Determine the preservice teachers' perceptions of the important elements of the student teaching experience at the conclusion of the 14-week field experience; and
3. Determine if there were changes in the preservice teachers' perceptions of the important elements of the student teaching experience.

Methodology

This descriptive study was executed using survey design methodology (Creswell & Cresswell, 2018). Survey design was deemed the most appropriate method because survey design provides the researchers with a quantitative description of participants' attitudes and opinions toward a specific phenomenon (i.e., student teaching experience; Creswell & Creswell, 2018). Data were collected from University of Florida preservice teachers (N = 19) who were enrolled in the student teaching capstone experience course using a pre- and posttest design. The preservice teachers completed the questionnaire prior to the 14-week student teaching experience (pretest) and again at the conclusion of the 14-week student teaching experience (posttest). It should be noted as a result of the COVID-19 pandemic, preservice teachers completed the pretest face-to-face using a hard copy of the questionnaire (pre-COVID-19) and completed the posttest online via Qualtrics® (intra-COVID-19). Questionnaires were collected while students attended in-person and virtual seminar sessions and were collected using face-to-face questionnaire collection procedures. This study was IRB approved and appropriate protocol was followed.

Population

This census study consisted of 18 females and one male. The population was 94.7% White and 5.3% Hispanic. The student enrollment numbers of student teaching placement sites ranged from 553 to 3,300 students with a mean score of 1,537 students. The number of agricultural education teachers at each student teaching site ranged from one to four teachers with a mean score of two teachers. All the student teaching sites (N = 19) had a barn/livestock facility. Fifteen of the 19 student teaching sites had a land laboratory. Fourteen of the 19 student teaching sites had a greenhouse and seven of the 19 student teaching sites had other horticulture facilities. Just under half of the student teaching sites (n = 8) had a computer laboratory. Three of the 19 student teaching sites had a food science laboratory and six of the 19 student teaching sites had an agriscience laboratory. Only one of the 19 student teaching sites had an aquaculture facility.

A little over one-fourth of the preservice teachers (n = 5) planned to attain teaching certificates in other areas, while the remaining preservice teachers (n = 14) planned to attain certification in agricultural education alone. Eleven preservice teachers responded that they were "probably interested" or "definitely interested" in pursuing a graduate degree. The remainder (n = 8) were either "unsure" or "probably not interested" in pursuing a graduate degree. All but two of the preservice teachers (n = 17) wanted to teach in high school (grades 9–12) and 14 preservice teachers expected to teach for 11 years or more. A majority of preservice teachers (n = 15) wanted to teach in a multi-agriscience teacher program.

Instrument

The questionnaire used in this study was created by Harlin et al. (2002), and modified by Young and Edwards (2006), then further modified to better fit the characteristics of Florida agriscience programs. An author of both studies was notified of the use and modification of the questionnaire. A panel of experts, including two faculty of agricultural education and two graduate students of agricultural education, reviewed the instrument and made recommendations to improve face and content validity. Two facilities that are commonly found in Florida and two personal items were added to the selected personal and professional characteristics section of the questionnaire. One item was added under the element of school and community relationships/resources, and additional general wording was modified to be state-specific. The first section consisted of 35 items categorized under five core elements of the student teaching experience, including, (a) classroom and laboratory instruction (5 items), (b) student leadership development (FFA activities; 7 items), (c) cooperating teacher/student teacher relationships (9 items), (d) school and community relationships/resources (10 items), and (e) supervised agricultural experience programs (4 items). The pre and post reliability estimates for the five elements were (a)

classroom/laboratory instruction (α^{pre} = .67; α^{post} = .66), student leadership development (α^{pre} = .65; α^{post} = .76), cooperating teacher/student teacher relationships (α^{pre} = .62; α^{post} = .71), school and community relationship/resources (α^{pre} = .84; α^{post} = .83), and supervised agricultural experience programs (α^{pre} = .70; α^{post} = .82). These reliability estimates for the five core elements are consistent with those reported by Young and Edwards (2006), which ranged from α = .60 to α = .84. These reliability estimates are similar to those reported by Harlin et al. (2002), which ranged from α = .72 to α = .95. Cronbach's Alpha levels from 0.6 to 0.7 are acceptable reliability estimates and levels at 0.8 or greater are considered very good estimates (Hulin et al., 2001). The preservice teachers were asked to rate their perceived level of importance for each item using the following five-point Likert scale, 1 = no importance, 2 = low importance, 3 = medium importance, 4 = much importance, and 5 = high importance. To interpret findings, real limits were established. The real limits of the questionnaire were 1 to 1.49 = no importance, 1.5 to 2.49 = low importance, 2.5 to 3.49 = medium importance, 3.5 to 4.49 = much importance, and 4.5 to 5 = high importance. The second section of the questionnaire consisted of items to determine the selected personal and professional characteristics of the preservice teachers. The preservice teachers completed the questionnaire prior to the 14-week student teaching experience (pretest) and again at the conclusion of the 14-week student teaching experience (posttest).

Data Analysis

The data were analyzed using SPSS version 27. All objectives were analyzed using descriptive statistics (i.e., means, standard deviations, frequencies, and percentages). Percent differences were calculated for the pre and post mean scores to determine difference. Given Cronbach's alpha coefficients ranged from .62 to .84 for some elements both pre and post, readers should be cautioned to the internal consistency of the elements. Thus, all individual item means and standard deviations are reported, not construct means and standard deviations.

Limitations

There are three limitations in this study that could be addressed in future research. The first is the small population size does not allow for generalizability beyond this study. Additionally, changes reported within this study could be overly sensitive as a result of the small sample. For example, with 19 respondents, any small or large changes in percent difference scores could be a function of only one or two participants selecting one scale point higher or lower. The second is the internal consistency of some of the elements (constructs) pre and post as demonstrated by the Cronbach's alpha coefficients. Lastly, a historical threat due to the COVID-19 pandemic was a limitation. The preservice teachers were required to rapidly transition to online teaching or finished the semester prematurely. The results might have been different if the preservice teachers experienced a full-length, face-to-face student teaching experience.

Findings

The preservice teachers' five highest rated items prior to the 14-week field experience were all within the element of cooperating teacher/student teacher relationships. A cooperating teacher who communicates clear expectations to the student teacher (i.e., role in classroom and calendar of events; M^a = 5.00, SD^a = 0.00) was rated the highest, followed by a cooperating teacher who is willing to be a mentor (M^a = 4.95, SD^a = 0.23), a cooperating teacher who is a "good" role model (M^a = 4.95, SD^a = 0.23), a student teacher who is willing to be mentored by the cooperating teacher (M^a = 4.95, SD^a = 0.23), and a cooperating teacher who has a positive attitude (M^a = 4.89, SD^a = 0.32). The two lowest rated items from the pretest were a history of successful FFA participation (M^a = 2.84, SD^a = 0.77) and use of local media (M^a = 3.37, SD^a = 0.76), respectively. The first was within the element of student leadership development (FFA Activities) and the latter was within the element of school and community relationships/resources.

Congruent with results of the pretest, the five highest rated items from the posttest were within the element of cooperating teacher/student teacher relationships. A student teacher who is willing to be mentored by the cooperating teacher (M^b = 5.00, SD^b = 0.00) was rated the highest by the preservice teachers, followed by a cooperating teacher who is willing to be a mentor (M^b = 4.95, SD^b = 0.23), a cooperating teacher who is a "good" role model (M^b = 4.89, SD^b = 0.32), a cooperating teacher who has a positive attitude (M^b = 4.84, SD^b = 0.38), and a cooperating teacher who communicates clear expectations to the student teacher (i.e., role in classroom and calendar of events; M^b = 4.74, SD^b = 0.45). A history of successful FFA participation (M^b = 3.16, SD^b = 0.60) remained the lowest rated item from the pretest to the posttest. However, the second lowest rated item from the posttest was all students have an SAE requirement with accurate record books (M^b = 3.37, SD^b = 0.76). All of the preservice teachers' ratings of the important elements of the student teaching experience are reported in Table 1.

Table 1

Preservice Teachers' Perceptions of Important Elements of the Student Teaching Experience Before and After the 14-Week Field Experience

Element/Item	Pre-test		Post-test	
	M^a	SD^a	M^b	SD^b
Classroom and Laboratory Instruction				
Daily (systematic) classroom and/or laboratory instruction	4.79	0.54	4.74	0.45
A discipline management plan is used in a structured environment	4.53	0.77	4.47	0.70
Creative teaching methods as a basis for daily instruction (i.e., use of multimedia and varied teaching techniques)	4.32	0.82	4.68	0.58
Current technology used in instruction	3.63	0.76	4.00	0.75
A well-rounded program emphasizing instruction, SAEs, and youth leadership activities	4.68	0.48	4.58	0.61
Student Leadership Development (FFA Activities)				
Cooperating teachers who are familiar with current rules for participation in events (i.e., CDEs)	4.32	0.58	4.37	0.76
Cooperating teachers who delegate the training of at least one team to the student teacher	4.05	0.78	4.32	0.89
FFA activities are essential for a balanced program	3.89	0.74	3.95	0.52
A history of successful FFA participation	2.84	0.77	3.16	0.60
Opportunities for student teacher to judge/monitor district/state CDEs	3.47	1.02	3.79	0.71
Resources available to train a competitive team	4.37	0.68	4.05	0.78
Strong classroom instruction in student leadership development	3.89	0.74	4.05	0.71
Cooperating Teacher/Student Teacher Relationships				
Assistance in job placement	4.00	0.82	4.05	0.91
A cooperating teacher who communicates clear expectations to the student teacher (i.e., role in classroom and calendar of events)	5.00	0.00	4.74	0.45
A cooperating teacher who has a positive attitude	4.89	0.32	4.84	0.38
A cooperating teacher who is a "good" role model	4.95	0.23	4.89	0.32
A cooperating teacher who is willing to be a mentor	4.95	0.23	4.95	0.23

Element/Item	Pre-test		Post-test	
	M[a]	*SD*[a]	*M*[b]	*SD*[b]
A cooperating teacher who provides frequent evaluations and feedback to the student teacher	4.84	0.38	4.68	0.58
Discipline policies that are in place and enforced	4.68	0.58	4.63	0.60
"Reinforcement" techniques in teaching (i.e., pace, re-teaching, retesting, and accommodations of various learning styles)	4.26	0.56	4.26	0.73
A student teacher who is willing to be mentored by the cooperating teacher	4.95	0.23	5.00	0.00
School and Community Relationships/Resources				
Availability of facilities (i.e. computer labs, shops, horticultural lab, land labs, school farm)	4.58	0.51	4.63	0.60
Community service projects	4.47	0.61	3.95	0.52
A cooperating teacher who supports activities in the community (i.e. service organizations, events)	4.05	0.71	3.84	0.83
A cooperating teacher who supports other school activities (i.e. athletic events, dramatic arts)	3.74	0.73	3.63	0.83
Departmental support organization(s) (i.e. advisory committees, booster clubs, and alumni)	4.47	0.51	3.84	0.77
Opportunities for the student teacher to communicate with parents (i.e., calls home, emails, letters)	4.37	0.76	4.05	0.71
Recognized integrity of cooperating teacher	4.68	0.48	4.42	0.69
School administrators who are involved in program activities	4.42	0.69	3.95	0.71
A spirit of professional cooperation among fellow teachers	4.42	0.61	4.32	0.58
Use of local media	3.37	0.76	3.47	0.77
Supervised Agricultural Experience Programs				
All students have an SAE requirement, with accurate record books	3.95	0.78	3.37	0.76
Diversity within the students' SAEs	3.84	0.83	3.47	0.84
Project supervision and an explanation of this commitment to the student teacher	4.32	0.67	3.79	0.71
Student participation in advanced awards and degrees on all levels	3.42	1.07	3.68	0.75

Note. The real limits were 1 to 1.49 = no importance, 1.5 to 2.49 = low importance, 2.5 to 3.49 = medium importance, 3.5 to 4.49 = much importance, and 4.5 to 5 = high importance.

The data analysis revealed that the items within the element of cooperating teacher/student teacher relationships had the highest means, with pretest means ranging from 4.00 to 5.00 and posttest means ranging from 4.05 to 5.00. While items within that element did not show change, there were eight items within the remaining four elements that did display change. Ratings from the pre- and posttest, along with the percent difference for these eight items can be seen in Table 2.

Table 2

Important Elements of the Student Teaching Experience that Displayed Change

Element/Item	Pre-test		Post-test		
	M^a	SD^a	M^b	SD^b	% Diff.
Classroom and Laboratory Instruction					
A discipline management plan is used in a structured environment	4.53	0.77	4.47	0.70	-1.2
Creative teaching methods as a basis for daily instruction	4.32	0.82	4.68	0.58	7.2
Student Leadership Development (FFA Activities)					
Opportunities for student teacher to judge/monitor district/state CDEs	3.47	1.02	3.79	0.71	6.4
School and Community Relationships/ Resources					
Recognized integrity of cooperating teacher	4.68	0.48	4.42	0.69	-5.2
Availability of facilities	4.58	0.51	4.63	0.60	1.0
Supervised Agricultural Experience Programs					
All students have an SAE requirement, with accurate record books	3.95	0.78	3.37	0.76	-11.6
Diversity within the students' SAEs	3.84	0.83	3.47	0.84	-7.4
Student participation in advanced awards and degrees on all levels	3.42	1.07	3.68	0.75	5.2

Note. The real limits were 1 to 1.49 = no importance, 1.5 to 2.49 = low importance, 2.5 to 3.49 = medium importance, 3.5 to 4.49 = much importance, and 4.5 to 5 = high importance.

Conclusions and Discussion

The preservice teachers perceived the most important element of the student teaching experience was the cooperating teacher/student teacher relationship, which is congruent with previous research (Harlin et al., 2002; Kasperbauer & Roberts, 2007; Young & Edwards, 2006). Interestingly, Edwards and Briers (2001) found cooperating teachers shared similar perceptions, indicating both parties (cooperating teachers and preservice teachers) find the relationship to be of high importance.

The single questionnaire item with the largest positive percent difference was creative teaching methods as a basis for daily instruction, which was within the element of classroom and laboratory instruction. This was a change in perceived level of importance from *much importance* to *high importance*. As Torres et al. (2008) found, classroom and laboratory instruction was where preservice teachers spent most of their time. There was also a positive change in availability of facilities from *much importance* to *high importance*.

There was a negative change in the perceived level of importance of a discipline management plan is used in a structured environment and recognized integrity of the cooperating teacher from *high importance* to *much importance*. Additionally, there was a negative change in the perceived level of importance of all students have an SAE requirement, with accurate record books and diversity within the students' SAEs from *much importance* to *medium importance*. Lastly, there was a positive change in the perceived level of importance of opportunities for student teacher to judge/monitor district/state FFA CDEs and student participation in advanced awards and degrees on all levels from *medium importance* to *much importance*. Unlike Harlin et al. (2002) and Young and Edwards (2006), who reported change in all five

elements, only four out of the five elements showed change in the preservice teachers' perceptions of importance.

It should be recognized the changes in preservice teachers' perceptions of the important elements of the student teaching experience occurred after their immersion in a capstone learning experience. Aligned with the theory of experiential learning (Dewey, 1938; Kolb, 1984; Roberts, 2006b), the student teaching experience allows preservice teachers to engage with each of the elements, and through the processes of reflection and generalization, their original perceptions are influenced, which guides their future practice. Kasperbauer and Roberts (2007) concurred, stating the student teaching experience affects how preservice teachers view and approach future agricultural education. The findings of this study support these notions and have important implications for preservice teacher preparation and the student teaching experience.

Recommendations

Recommendations for Practice

When placing preservice teachers for the student teaching internship, teacher educators might consider placing a higher emphasis on the cooperating teacher/student teacher relationships. Congruent with the recommendation by Young and Edwards (2006), preservice teachers' professional needs and personality traits of both the preservice teacher and cooperating teacher could be strongly considered when choosing cooperating teachers. Roberts (2006a) suggested that cooperating teachers should be sufficient in content knowledge, effective teaching skills, classroom management skills, and program management abilities.

Preservice teacher preparation courses could emphasize diverse and creative teaching methods. In doing so, this will build preservice teachers' arsenal of teaching methodologies to be utilized during the student teaching experience and beyond. Examples of creative teaching methodologies could include cooperative learning, culturally responsive pedagogies, demonstrations, discussion, discovery learning, experiential learning, field trips, problem-solving strategies, resource people, role-playing, and a plethora of others with an emphasis on differentiated instruction.

Further, additional opportunities for preservice teachers to judge or monitor CDEs, complete or evaluate advanced awards or degrees, and engage in diverse lab facilities should be emphasized. Teacher educators and cooperating teachers could ensure such experiences be included and encouraged in student teaching handbooks, checklists, and goal planning. Coordination with state FFA associations could assist in fostering additional opportunities. Lastly, when placing preservice teachers for the student teaching internship, teacher educators could choose internship sites that emphasize SAE programs as an integral part of the program curricula. Cooperating teachers could be encouraged to expose preservice teachers to ample and diverse SAE experiences during their student teaching experience. These recommendations for practice are not only supported by the findings of this study, but also echo the need for well-rounded program experiences in classroom/laboratory instruction, SAE, and FFA addressed in previous research (Edwards & Briers, 2001; Roberts 2006a; Robinson et al., 2010).

Recommendations for Research

We recommend future research should be conducted to further explore the elements of the student teaching experience. It is recommended this study be replicated with larger populations of agricultural education preservice teachers and populations at other institutions. Recognizing our population for this study was low, we plan to collect data from each and every cohort moving forward to increase our population size over time to make stronger conclusions and recommendations. Collecting this type of data annually is also recommended for the purpose of longitudinal analysis. Further research should be

conducted to explore the role of the cooperating teacher and the important aspects of the cooperating teacher/student teacher relationship. Specifically, research regarding the characteristics (personal demographics, preservice teacher needs, cooperating teacher strengths/weaknesses, etc.) that may contribute to a positive working relationship.

This study, and other research in the profession, has explored preservice teachers' perceptions of important elements before and after the student teaching relationship. However, future research should be conducted to determine the preservice teachers' perceived importance of the elements of the student teaching experience after they have completed their first year of teaching in the profession. Therefore, it is recommended a deferred posttest be administered to participants, or perhaps qualitative interviews be conducted, as their perceptions may change after gaining career experience. Lastly, as a result of the yielded Cronbach's alpha coefficients, we recommend future research to investigate further scale development (i.e., element) to ensure better internal consistency. Continued research will lead to improved identification of the critical elements within the student teaching experience, so that quality and relevant experiences can be provided while preparing pre-service teachers.

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