Journal of Agricultural Education
Volume 51, Number 4, pp 142–153
DOI: 10.5032/jae.2010.04142

How Oklahoma State University Students Spent their Time Student Teaching in Agricultural Education: A Fall versus Spring Semester Comparison with Implications for Teacher Education

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This causal comparative study assessed differences in the way fall and spring semester student teachers spent their time performing various duties: observing, teaching specific curricula, laboratory instruction, activities outside of school, and supervision of Supervised Agricultural Experiences (SAEs). It was found that fall semester student teachers spent more time observing than spring semester student teachers. Additionally, fall semester student teachers spent more time in school overall than spring semester student teachers; spring semester student teachers spent significantly more time out of school during school hours. In terms of curriculum, both fall and spring semester student teachers devoted the most instructional time to teaching Agriscience I and II. Both groups spent approximately the same amount of time instructing in a classroom or laboratory setting. It also was found that spring semester student teachers devoted more time to supervising students' SAEs than did their fall semester counterparts.

Keywords: causal comparative, student teachers, time allocation

Introduction and Theoretical Framework

Time is a precious resource. Once it is gone, it never returns. As such, it is imperative to utilize time appropriately. Those who manage their time well are more productive on the job (Cohen & Cohen, 1984) because they prioritize important tasks and responsibilities associated with their jobs (Coplin, 2003; Covey, 1989). What is more, as graduation requirements hover between 124–128 credit hours in most undergraduate agricultural education degree plans, finding time to expose pre–service students in teacher preparation programs to real life challenges becomes problematic (Burris, Robinson, & Terry Jr., 2005). Fortunately, the student teaching experience can serve as a way to meet the needs of pre–service interns by exposing them to real life situations, including their allocation and use of work–related time (Torres & Ulmer, 2007).

Student teaching has been referred to as the "capstone experience" of teacher preparation and vital to teacher education efforts (Edgar, Roberts, & Murphy, 2009; Edwards & Briers, 2001; Harlin, Edwards, & Briers, 2002; Nekolny & Buttles, 2007). Opportunities for valuable experiences during student teaching cannot be underestimated when considering its impact on improving teacher effectiveness (Roberts & Ball, 2009; Swanson, 1971). As a result, it allows for practicing effective teaching in a safe environment under the guidance of a mentor teacher, which may ultimately influence whether an individual decides to enter the teaching profession (Talbert, Vaughn, & Croom, 2005).

Individuals cite many reasons for entering teaching, such as a desire to serve mankind by imparting knowledge to future generations, performing a valuable service to society, and for the love of children (Ornstein & Levine, 1989). Talbert et al. (2005) posited that agricultural

education teachers are no different from instructors of other disciplines in their reasons for entering the profession. However, preparation for career development events (CDEs), advising an FFA chapter, supervising students' Supervised Agricultural Experiences (SAEs), and maintaining overall quality of a program may be additional roles and responsibilities aspirants consider when choosing a career as an agriculture teacher (Torres, Ulmer, & Aschenbrener, 2008).

With these opportunities come added expectations. It is assumed secondary agricultural educators are technically competent in classroom and laboratory instruction (Edwards & Thompson, 2010), managing FFA activities, and supervising SAEs (National FFA Organization, 2009). However, for competence to be acquired, student teachers need exposure to these roles during their student teaching experience. Historically, agricultural education has been experiential in nature (Roberts, 2006). Because the curriculum is diverse, multiple opportunities exist for student teachers to teach across the curriculum in areas such as agricultural mechanics, animal and plant sciences, horticulture and greenhouse production, as well as basic exploratory and introductory courses. Experiencing the opportunity to teach across the curriculum can be essential to student teachers' growth because, from John Dewey's perspective, experiential learning is seen "as central to successful educational activity" (Gordon, 2008, p. 29).

Researchers in agricultural education have long signified the need to provide teachers additional opportunities to acquire technical competence (Edwards & Thompson, 2010). Moreover, it could be implied that when student teachers are allowed to teach across the curriculum, their technical skills are enhanced. Recommendations have included pre–service and in–service education for learning how to integrate technical content into the secondary agricultural education curriculum (Edwards & Thompson, 2010; Harris & Birkenholz, 1996; Myers & Dyer, 2004; Parr, Edwards, & Leising, 2009; Warnick, Thompson, & Gummer, 2004; Young, Edwards, & Leising, 2009). Further, recommendations have sought to focus pre–service students on the importance of integrating content through cross–curricular instruction (Conroy & Walker, 2000) and developing new models within pre–service teacher education programs to advocate for and solicit integration practices (Kotrlik, Redmann, & Douglas, 2003; Parr et al., 2009; Young et al., 2009).

Those recommendations were made in an attempt to better equip early–career teachers with technical knowledge and skills. Although these opportunities are important and should continue to be promoted to hone the skills of pre–service and practicing teachers, the student teaching experience should also serve as an ideal setting in which novices acquire more technical expertise (Burris et al., 2005) by teaching a variety of curriculum under the guidance of a cooperating teacher.

However, Torres et al. (2008) opined that little research has been conducted on teacher workload and the allocation of hours spent during the student teaching internship. Understanding where student teachers spend their time during these experiences is important. Coplin (2003) surmised that, generally, people should be able to "handle multiple assignments over a two– or three–week period, as well as to not miss highly routine activities, such as submitting weekly reports" (p. 15). As such, a means for understanding where student teachers spent their time was through the assessment of their weekly journal reflections or reports.

It has been suggested that increased demands on secondary agricultural education teachers' time may be the reason for a lack of teacher effort in all phases of the program, such as SAEs (Warren & Flowers, 1993). With teacher work weeks in secondary agricultural education programs ranging, on average, between 45 to 65 hours (Cole, 1981), time management practices must be followed (Warren & Flowers, 1993). Warren and Flowers stated, "With the push for more comprehensive agriculture programs, increased student–to–teacher ratios and a high demand on accountability, instructor work–loads have become more time consuming" (p. 69). So, it is important to know where and how teachers choose to spend their time, including beginners.

Conceptually, this study was based on describing the time student teachers allocated to various aspects of their internship experience. It has been suggested that the amount of time teachers allocate to various activities can improve student learning and achievement overall (Carroll, 1989; Gettinger, 1985;

Rosenshine & Furst, 1971). In agricultural education, recent efforts by various researchers (e.g., Nekolny & Buttles, 2007; Torres & Ulmer, 2007; Torres et al., 2008) have described where student teachers invest their time while interning. Torres and Ulmer (2007) analyzed five years of University of Missouri student teacher data (N = 55) from 1999 to 2003 and categorized this into five three–week intervals. When totaled, their study revealed that 2.73 hours per week were spent in observation, 8.44 hours per week were spent in planning, 8.19 hours per week were spent teaching, 10.80 hours per week were spent conducting teacher–related activities, and 2.05 hours per week were invested in administrative activities.

A similar study by Nekolny and Buttles (2007) sought to determine the differences in time allotted for various teaching activities of fall and spring student teachers at the University of Wisconsin–River Falls from 2003 to 2006 during an 18–week internship. The authors divided and analyzed their data in six three–week intervals. When summed, the study revealed that fall student teachers averaged 2.58 hours per week in observation as compared to 3.30 hours per week for spring student teachers. Further, fall student teachers spent 3.70 hours per week teaching in contrast to 4.19 hours per week reported by the spring student teachers.

Torres et al. (2008) compared Missouri student teachers (N = 13), first year teachers (N = 11), and experienced teachers (N = 11), in 2006, on how they distributed their time in the classroom. The authors found that the three groups did not "distribute their time equally" (p. 85). The data accumulated during the 15–week student teaching experience was recorded in five three–week intervals. When summed, it was revealed that student teachers invested 1.48 hours per week in observation. Further, student teachers spent 4.80 hours per week teaching compared to 7.37 hours per week for first–year teachers, and 7.04 hours for experienced teachers.

Torres and Ulmer (2007) stated that, "Dialog should occur to explore whether the distributions of time are within [the] level of expectations" (p. 10). However, before teacher educators at Oklahoma State University could address that directive appropriately, it was important to determine how student teachers were spending time as it related to their student teaching internships.

Purpose and Objectives

The purpose of this study was to determine how student teachers from the fall 2005 academic semester to the spring 2008 academic semester spent time during their 12–week student teaching experience, and to determine if statistically significant differences existed between those who student taught in the fall semesters and those who student taught in the spring semesters. Specifically, this study sought to describe student teachers' experiences related to time spent observing versus teaching, teaching across the curriculum, and teaching in the classroom as well as laboratory settings. Further, the study sought to determine how much time student teachers spent in school and out of school and supervising students' SAEs. The institution studied offers student teaching in both the fall and spring semester. So, of particular interest, was to determine if significant differences existed in the experiences gained in various areas of the student teaching experience by semester (Nekolny & Buttles, 2007). The following objectives guided the study:

1. Compare the amount of time fall and spring student teachers devoted to instruction versus observation.
2. Describe the amount of time fall and spring student teachers devoted to providing instruction in the various curriculum areas of agricultural education.
3. Compare the amount of time fall and spring student teachers spent instructing in the classroom versus the laboratory setting.
4. Compare the amount of time fall and spring student teachers spent in school versus out of school performing programmatic activities.
5. Compare the amount of time fall and spring student teachers devoted to supervising students' SAEs including entrepreneurial, placement, and exploratory experiences.

Because a portion of this study sought to determine differences between fall and spring semester student teachers regarding their experiences, a series of independent t–tests were

calculated for objectives 1, 3, 4, and 5. Hypotheses for those objectives are listed below. For objective one, the null hypothesis stated that, in the population studied, no statistically significant ($p < .05$) difference existed between fall and spring semester student teachers for the hours spent teaching and observing (H_o: $\mu_{1\ fall} = \mu_{2\ spring}$). To address objective three, the null hypothesis stated that, in the population studied, no statistically significant ($p < .05$) difference existed between fall and spring semester student teachers in the hours spent teaching in the classroom versus the laboratory (H_o: $\mu_{1\ fall} = \mu_{2\ spring}$).

For objective four, the null hypothesis stated that, in the population studied, no statistically significant ($p < .05$) difference existed between fall and spring semester student teachers in regard to hours spent in school and out of school (H_o: $\mu_{1\ fall} = \mu_{2\ spring}$). Lastly, to address objective five, the null hypothesis stated that, in the population studied, no statistically significant ($p < .05$) difference existed between these two groups in the amount of time devoted to supervising the three types of students' SAEs specified (H_o: $\mu_{1\ fall} = \mu_{2\ spring}$).

Methods and Procedures

This causal comparative study relied on data collected from student teachers during their 12–week student teaching experiences. The total population consisted of three years of student teachers who participated in either a fall or spring semester student teaching experience from fall 2005 to spring 2008 ($N = 70$). In all, three fall semesters ($n = 22$) and three spring semesters ($n = 48$) of student teachers' weekly reports were compiled and summated for ease of readability, comparison, and interpretation. It was assumed that these six semesters of student teachers were no different from other students in previous years. So, this study was a "time and place" sample (Oliver & Hinkle, 1982) and allowed for the use of inferential statistics (i.e., *t*–tests).

Data were retrieved from archived, weekly journal reflection reports submitted electronically by student teachers during each week of their 12–week student teaching experience. Students self–reported the number of clock hours spent performing various teacher roles: observation, teaching (classroom and laboratory settings), including instruction of specific curricula, time in alternate settings (i.e., co–curricular events during school hours), and SAE supervision. Each report was reviewed and data were recorded into a Microsoft Excel spreadsheet for analysis. To analyze the data, descriptive statistics, such as means, standard deviations, frequencies, and percentages were employed. Additionally, *t*–tests were performed to determine whether statistically significant differences existed between the time allocations of fall and spring student teachers. The Cohen's *d* statistic was used to assess the practical significance of selected findings (Cohen, 1988). An alpha level of .05 was employed *a priori*.

Notably, no distinctions were made among the variations of class length. Per the weekly, journal reflection reports, only class "periods" were denoted. As such, one hour was recorded for each period taught whether the class session was 45 minutes in length or a 90 minute "block" period. So, slight variations in data exist regarding duration of class periods. Due to these variations, in some instances, standard deviation scores exceed the mean values. Additionally, any period in which a student teacher was not in school during regular school hours was categorized as "out of school." Examples of time spent "out of school" included student teacher "job" related duties such as attending livestock exhibitions, facilitating CDEs, and observing other teachers (i.e., not their cooperating teachers), as well as personal reasons such as illnesses and interviewing for jobs.

Findings

Objective one sought to determine the amount of student teachers' time devoted to observation versus instruction. It was revealed that fall student teachers observed eight hours per week ($M = 8.24$, $SD = 7.13$) and taught almost 10 hours per week ($M = 9.89$, $SD = 7.35$) (Table 1). Additionally, spring student teachers observed nearly two hours less ($M = 6.38$, $SD = 7.41$) than fall student teachers. In comparison, spring student teachers taught about one hour less per week than fall student teachers ($M = 8.97$, $SD = 6.77$). A statistically significant difference ($p < .05$) was found for hours spent observing; so, the null hypothesis was rejected.

Table 1
Differences between Student Teachers' Time Spent Observing versus Teaching by Semester

Experience		*f*	*M*	*SD*	min.–max.[a]	*t*–value	*p*–value
Observed					0–7		
	Fall	22	8.24	7.13		3.45[b]	.00*
	Spring	48	6.38	7.41			
Taught					0–7		
	Fall	22	9.89	7.35		1.71[c]	.09
	Spring	48	8.97	6.77			

Note. [a]Range of units of time (i.e., class periods) spent observing and teaching each week day. *$p < .05$; [b]Cohen's $d = .26$ ("small"); [c]Cohen's $d = .13$ ("negligible")

When assessing time spent teaching, the *p*–value was .09. Thus, the null hypothesis was not rejected, indicating no statistically significant difference existed between student teachers' time spent teaching whether they student taught in the fall or spring semester.

Objective two sought to determine the amount of student teachers' time devoted to instruction by curriculum area. Descriptive statistics were used to address this objective (Table 2). The curricula areas in which fall student teachers invested the most time teaching were Agriscience I and II ($M = 4.25$, $SD = 3.44$), Agricultural Power and Technology ($M = 1.59$, $SD = 2.20$), Animal/Equine Science ($M = 1.29$, $SD = 1.90$), and Plant Sciences/Horticulture/Natural Resources ($M = 1.15$, $SD = 2.25$). In contrast, the curricula areas in which spring student teachers invested the most time teaching were Agriscience I and II ($M = 3.26$, $SD = 3.32$), Agricultural Power and Technology ($M = 1.49$, $SD = 2.31$), 7th and 8th grade Agriculture ($M = 1.25$, $SD = 2.07$), and Plant Sciences/Horticulture/Natural Resources ($M = 1.08$, $SD = 2.00$).

Both fall and spring semester student teachers spent the least amount of time teaching Food Science ($M_{fall} = 0.00$, $SD = .00$; $M_{spring} = 0.03$, $SD = .28$), CDEs ($M_{fall} = 0.00$, $SD = .00$; $M_{spring} = 0.19$, $SD = .79$), Agribusiness and Marketing ($M_{fall} = 0.24$, $SD = .98$; $M_{spring} = 0.29$, $SD = 1.44_{spring}$), and Agricultural Communications ($M_{fall} = 0.32$, $SD = 1.09$; $M_{spring} = 0.41$, $SD = 1.15$).

Table 2
Student Teachers' Time Spent Teaching across the Curriculum

	Fall 2005 to 2007 ($N = 22$)		Spring 2006 to 2008 ($N = 48$)	
Curriculum Area	*M*	*SD*	*M*	*SD*
Agribusiness and Marketing	0.24	.98	0.29	1.44
Agricultural Communications	0.32	1.09	0.41	1.15
Agricultural Power and Technology	1.59	2.20	1.49	2.31
Agriscience I and II	4.25	3.44	3.26	3.32
Animal/Equine Science	1.29	1.90	1.03	1.79
Career Development Events	0.00	.00	0.19	.79
Food Science	0.00	.00	0.03	.28
Plant Science/Horticulture/Natural Resources	1.15	2.25	1.08	2.00
7th and 8th Grade Agriculture	1.08	1.74	1.25	2.07

Objective three sought to determine the amount of student teachers' time spent in classroom versus laboratory settings. Fall student teachers taught almost eight hours in the classroom (M = 7.90, SD = 5.75) and two hours in the laboratory (M = 2.03, SD = 2.86) per week (Table 3).

Table 3
Student Teacher's Time Spent Teaching in the Classroom versus in the Laboratory

Teaching Location		*f*	*M*	*SD*	*t*–value	*p*–value
Classroom						
	Fall	22	7.90	5.75	1.85[a]	.06
	Spring	48	7.12	5.36		
Laboratory						
	Fall	22	2.03	2.86	0.84[b]	.40
	Spring	48	1.85	2.83		

Note. [a]Cohen's d = .14 ("negligible"); [b]Cohen's d = .06 ("negligible")

In comparison, spring student teachers averaged slightly more than seven hours of teaching in the classroom (M = 7.12, SD = 5.36) throughout the semester and nearly two hours per week teaching in the laboratory (M = 1.85, SD = 2.83). No statistically significant differences were found between fall and spring student teachers regarding time spent teaching in the classroom and time spent teaching in the laboratory. Accordingly, the null hypothesis was not rejected.

Objective four sought to determine the amount of time spent in school versus out of school devoted to programmatic activities. The fall semester interns spent two additional hours per week in school than did spring student teachers (M_{fall} = 18.69, SD = 7.51) (M_{spring} = 16.61, SD = 9.10) (Table 4), a difference that was statistically significant ($p < .05$). So, the null hypothesis (H_o: $\mu_{1\ fall} = \mu_{2\ spring}$) was rejected. Regarding time spent on programmatic activities out of school, spring student teachers reported approximately one and one–half hours more per week out of school as compared to their fall semester counterparts (M_{fall} = 5.42, SD = 6.69) (M_{spring} = 7.07, SD = 8.19). Again, this difference was statistically significant and the null hypothesis was rejected.

Table 4
Student Teacher Time Spent in School versus Out of School

Variable		*f*	*M*	*SD*	*t*–value	*p*–value
In School						
	Fall	22	18.69	7.51	3.46[a]	0.00*
	Spring	48	16.61	9.10		
Out of School						
	Fall	22	5.42	6.69	–3.07[b]	0.00*
	Spring	48	7.07	8.19		

Note. *$p < .05$; [a]Cohen's d = .26 ("small"); [b]Cohen's d = .13 ("negligible")

Objective five sought to compare the amount of time student teachers devoted to supervising students' SAEs. Specifically, each "visit," or contact, was considered as one hour of time expenditure by the student teacher. It was revealed that fall student teachers spent slightly more than one hour per week supervising students' SAEs (M = 1.13, SD =

2.06), and spring student teachers spent slightly more than one and one–half hours per week similarly (M = 1.55, SD = 3.63) (Table 5). An independent sample t–test yielded a p–value of 0.03; thus, the null hypothesis (H_o: $\mu_{1\ fall} = \mu_{2\ spring}$) was rejected. Further, fall student teachers supervised 279 entrepreneurship, 17 placement, and six exploratory SAEs, and spring student teachers supervised 696 entrepreneurship SAEs, 18 placement SAEs, and one exploratory SAE (Table 6).

Table 5
Student Teachers' Time Spent Supervising Students' SAEs per Week

Variable		*f*	*M*	*SD*	*t*–value	*p*–value
Supervisory Hours						
	Fall	22	1.13	2.06	–2.08[a]	0.03*
	Spring	48	1.55	3.63		

Note. *$p < .05$; [a]Cohen's d = -.14 ("negligible")

Table 6
Types of SAEs Supervised by Student Teachers

Types of SAE		*Total SAEs Supervised*
Entrepreneurship		
	Fall	279
	Spring	696
Placement		
	Fall	17
	Spring	18
Exploratory		
	Fall	6
	Spring	1

Conclusions

This study sought to determine how student teachers spent time during their 12–week student teaching experiences, and determine if statistically significant differences existed between those who student taught in the fall semesters and those who student taught in the spring semesters. Twice as many student teachers taught in the spring semester than in the fall. So, readers are cautioned when making generalizations concerning practical and statistically significant differences between fall and spring semester student teaching experiences.

In all, fall semester student teachers spent more than eight hours per week observing their mentor teachers and nearly 10 hours per week teaching class; however, spring student teachers spent a little more than six hours per week observing and almost nine hours per week teaching. These findings are in excess of previous research (e.g., Nekolny & Buttles, 2007; Torres & Ulmer, 2007; Torres et al., 2008). Of the three aforementioned studies, the findings of this study most closely resemble Missouri student teacher time allocation as described by Torres and Ulmer (2007). However, student teachers at this institution observed two to three more hours per week and taught one to two more hours per week than what Torres and Ulmer reported.

No significant difference was found between the fall and spring semester student teachers'

experiences when assessing hours spent teaching in the classroom versus laboratory setting. Both groups spent more time teaching in a classroom than in a laboratory. Additionally, the groups reported spending seven or more hours teaching in a classroom and about two hours or less instructing in a laboratory setting per week. Further, fall semester student teachers spent nearly two hours more per week in school than did their spring semester peers.

Spring semester students also devoted more time to supervising students' SAEs than their fall semester counterparts. Nearly one–half hour more per week was devoted to supervising SAEs. Talbert et al. (2005) concluded, "To experience something, an individual must be actively involved in sensing it or making it happen" (p. 417). Regardless of semester taught, all student teachers were afforded opportunities to supervise student SAEs; albeit, the amount of time spent varied. Moreover, these experiences were limited primarily to the entrepreneurship category.

Recommendations for Practice

The findings of this study have implications for student advising. Students should be made aware that student teachers spend approximately the same amount of time teaching regardless of semester. Practically, no difference existed in the amount of time student teachers spent conducting various activities related to teaching regardless of the semester in which they student taught (i.e., fall or spring). However, because fall semester student teachers are "in school" an extra two hours per week as opposed to spring student teachers, the opportunity to observe mentors in formal educational settings and understand their daily routines and functions in school is enhanced (Coplin, 2003). And, because of the time spring student teachers spend outside of school, they should be encouraged to observe their mentors purposefully in a variety of nonformal teaching settings.

Student teachers should supervise a wider variety of SAEs, but they can only supervise the existing SAEs at their cooperating centers. So, in–service workshops should exist for cooperating teachers to encourage and promote a broader range of what SAEs could and perhaps should be facilitated in Oklahoma (Young & Edwards, 2005). Moreover, agricultural industry experts should be queried to further determine the opportunities and future of SAEs in secondary agricultural education programs in Oklahoma (Ramsey, 2009; Ramsey & Edwards, 2010).

Finally, student teachers were only investing roughly two hours per week in the laboratory. So, more emphasis should be placed on preparing student teachers to teach in laboratory settings during their pre–service teacher preparation on campus, and inform cooperating teachers of that expectation.

Recommendations for Further Research

Because a large number of entrepreneurship SAEs were identified, further research should be done to describe better the types of SAEs students are conducting (Baggett-Harlin & Weeks, 2000) and determine if these SAEs are being identified properly. Additionally, a more detailed weekly reporting form should be developed to assist pre–service teachers with improving their reflections when journaling. That may improve related inquiries qualitatively and aid this institution's teacher preparation faculty in responding to the needs of pre–service teachers in the future regarding their role vis–à–vis students' SAEs.

Additional studies should assess the topic areas in which student teachers are instructing as they teach across the curriculum. Specifically, a need exists to determine the length of time students spend teaching certain topics. Per this study, the largest amount of student teacher time was devoted to teaching Agriscience I and II as well as Agricultural Power and Technology. However, this research failed to denote the amount of time given to independent units and lessons within a particular course. Further investigations should attempt to determine which topics student teachers instruct and the amount of time spent doing such.

Finally, in part, this study sought to determine which areas of the curriculum student teachers taught. Further studies should focus on the amount of content integration student teachers experience. For example, how often do student teachers integrate math and science into the curriculum? How often are instructional technologies used as tools for teaching secondary agricultural education? More emphasis should be placed on instructing pre–

service teachers as to the importance of documenting time spent integrating technical content into the agricultural education curriculum (Harris & Birkenholz, 1996; Myers & Dyer, 2004; Parr et al., 2009; Warnick, Thompson, & Gummer, 2004; Young et al., 2009).

Implications and Discussion

The spring semester is a busy time of year in Oklahoma. Activities such as the state FFA convention, state FFA interscholastics (i.e., CDEs), state livestock exposition and various preliminary CDEs occur during the spring semester. The fact that the spring semester is "congested" or "overloaded" with FFA activities may explain why fall student teachers spent more time observing their mentors, teaching, and being "in school" when compared to their spring student teaching counterparts. However, spring student teachers may be observing nonformal learning opportunities more (i.e., FFA events and SAE activities) than fall student teachers. So, the question becomes, "What is the 'magic number' of hours student teachers should teach and observe in both formal and nonformal settings during student teaching?"

Roberts (2006) noted that the secondary agricultural education curriculum is meant to be hands–on and experiential in nature. Accordingly, it stands to reason that laboratory instruction is an important experience for student teachers because of the opportunity to allow students to apply concepts learned in the classroom. But how much is sufficient?

In regard to time spent in and out of school, it should be noted that one full week of the 12–week student teaching experience in the spring semester was devoted to spring break. So, spring student teachers are afforded one–week less of formal teaching experiences than fall student teachers. This may explain why spring student teachers recorded less time in school than their fall counterparts. However, most years in Oklahoma, spring break coincides with the state's livestock exposition; so, out of class or nonformal teaching opportunities are provided.

When assessing student teachers' SAE supervision contacts, their experiences suggest that cooperating teachers have not been enlightened sufficiently on the possibilities of students conducting placement and exploratory SAEs. If so, this may be why student teachers are not gaining experience in these areas. Further, the large number of entrepreneurship SAEs reported here may be due to a strong emphasis on the exhibition of livestock by FFA youth in Oklahoma.

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