

Allocation of Time Among Preservice Teachers During Their Clinical Experience

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Student teaching is one of the most profound opportunities that teaching candidates experience as part of their preparation program (Clark, Byrnes, & Sudweeks, 2015). This process is an opportunity for the student to make the transition from student to professional educator and take knowledge of theory and change it, through experience, into practice. During student teaching, university students are expected to mirror the actual job expectations of their cooperating teachers which include all areas of the three-circle model of agricultural education (classroom teaching, FFA, SAE activities) in addition to the roles of program administrator, college student, and adult educator. There is a connection between the amount of time spent in an activity and levels of self-efficacy associated with the activity and further connections between levels of self-efficacy and longevity in the field of education and this study examined the allocation of time among preservice teachers over their student teaching experience. Weekly reports were submitted by cohort students to university supervisors and compiled for data analysis. Among the five general categories used, the most time was allocated to serving as an FFA advisor and secondary instructor, a smaller amount was spent in “student” roles, and the remaining time dedicated to program administrative roles and adult education. Analysis of sub-categories within the broader roles revealed that student teachers were having drastically different experiences in terms of time allocation.

Introduction/Literature Review

The national teaching shortage is well established. Within the field of agricultural education, there have been unfilled vacancies every year since 1965 (Kantrovich, 2007). While professional attrition will always be present, part of the shortfall in teachers is caused by completers of agricultural teacher preparation programs not entering the teaching workforce. Roberts, Greiman, Murphy, Ricketts, and Harlin (2009) noted that only 70% of qualified candidates chose to enter the profession. Kantrovich (2007) reported that only 53% of candidates from the same time-period entered the profession specifically to teach high school agriculture. With such a large proportion of newly certified teachers choosing not to enter the profession of agricultural education there is a need to critically examine the teacher preparation process to help minimize these losses and help fill the demand for highly qualified teachers.

In education, self-efficacy has been an important construct associated with increased student performance (Ross, 1992). The increase in student performance could be connected to other studies that linked increased teacher self-efficacy with teachers who spend more time working with struggling students (Gibson & Dembo, 1984) and who are more prepared and organized (Allinder, 1994). Additionally, working teachers with higher perceived levels of self-efficacy report higher levels of commitment to the profession and reduced intentions to leave the classroom (Blackburn & Robinson, 2008; Caprara, Barbaranelli, Borgogni, & Steca, 2003; Coldarci, 1992; Walker, Garten, & Kitchel, 2004).

Studies have sought to identify areas of where teachers’ self-efficacy are low and generated recommendations for professional development areas with investigations into perceived efficacy in mathematics (Stripling & Roberts, 2012), science (Hamilton & Swortzel, 2007), dealing with students with special needs (Aschenbrener, Garton, & Ross, 2010), as well

as the relationship of self-efficacy and community connectedness (Langley, Martin, & Kitchell, 2014). Beyond measuring self-efficacy in subject areas or dealing with populations, studies have investigated the self-efficacy of agricultural teachers based on certification method (traditional or alternate). Rocca and Washburn (2006) found that there was no difference in self-efficacy when comparing traditionally and alternately certified teachers while Duncan and Ricketts (2008) found certified teachers were more efficacious in content knowledge, program development, and FFA and Supervised Agricultural Experience activities.

As part of a teacher preparation program, student teaching has been regarded as being an important capstone experience (Myers & Dyer, 2004; Borko & Mayfield, 1995; Edgar, Roberts, & Murphy, 2009; Smalley, Retallick, & Paulsen, 2015) where prospective teachers have an opportunity to learn from real-world, high-impact experiences (Smith & Rayfield, 2017) and develop self-efficacy as teachers. Two longitudinal studies noted a decrease in efficacy midway through student teaching and that efficacy was at its highest at the conclusion of student teaching (Roberts, Harlin, & Ricketts, 2006; Roberts, Mowen, Edgar, Harlin, & Briers, 2007). This finding was supported by Swan, Wolf, and Cano (2011) who, when measuring changes in self-efficacy in the first year of teaching, noted the highest levels of self-efficacy immediately following student teaching.

The quality of the student teaching experience has strong implications for the profession. Student teachers who had a positive teacher preparation reported higher levels of self-efficacy (Ronfeldt & Reininger, 2012; Knobloch, 2006; Whittington, McConnell, & Knobloch, 2006). Conversely, a lack of positive experiences leads to diminished self-efficacy which is associated with lower levels of job satisfaction and a decrease in the planned career longevity of the early career teacher (Blackburn & Robinson, 2008; McKim & Velez 2015).

The quantity of work placed on student teachers is a key consideration in examining and developing student teaching opportunities. In a study of non-agricultural education pre-service teachers, Fives, Hamman, and Oliverez (2007) posited that the high workload placed on student teachers may be creating early burnout in student teachers and impacting their decision to enter the field. This potential early burnout is of special concern in preservice agricultural teachers where the three-circle model of agricultural education increases the time commitment expected of cooperating agricultural educators and their student teachers. A study in Georgia reported that agricultural teachers average a 57-hour work week, plus an additional 20+ hours attending to family obligations (Murray, Flowers, Croom, & Wilson, 2011). The long hours are not localized to the southeast. McKim and Velez (2016) noted that agricultural education teachers from the western states work more than 55 hours during an average week.

The challenging schedules of an agricultural teacher, and the implications for potential student teacher burnout, lends itself to a need to prioritize where student teachers allocate their time. Torres and Ulmer (2007) found that student teachers spent most of their time planning for instruction, teaching, and on teaching-related activities, and the smallest amount of their time on administrative related activities. This aligns with a later study where Robinson, Krysher, Haynes, and Edwards (2010) reported student teachers spending much of their time observing their mentor teachers and teaching class. These studies on how student teachers spent their time parallels studies on the perceived importance of student teaching activities. Smalley, Retallick

and Paulsen (2015a, 2015b) reported that student teachers saw planning for instruction as being the most important activity while cooperating teachers perceived the most important activity as evaluating student performance. In a study of university supervisors, Paulsen, Smalley and Retallick (2016) identified planning for instruction, teaching, evaluating students, and assisting students and their supervised agricultural experiences (SAEs) as the most important constructs of student teaching.

The types and volume of experiences are not the only factor in developing student teacher self-efficacy. Relationships with the cooperating teacher (Harlin, Edwards & Briers, 2002), the nature of feedback provided (Edgar et al., 2009), and pace of experiences all play a role in the process. In a study comparing 15-week to year-long placement, it was suggested that the year-long internship provided more opportunity for developing self-efficacy through vicarious experiences (Clark, Byrnes, & Sudweeks, 2015). In addition to the length of placement, McKim and Velez (2016) posit that self-efficacy from student teaching is influenced by the number of courses taught and further suggest flexibility in course loads.

Conceptual Framework and Model

Self-efficacy is defined as an individual's perceptions regarding their capabilities, both cognitive and physical, to plan, organize and execute certain activities (Bandura, 1986). Teacher self-efficacy relates to the beliefs teachers hold about specific competencies in the profession (Pendergast, Garvis, & Keogh, 2011) but not necessarily their actual ability to complete the competencies (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The idea of cultivating self-efficacy in teachers has been posited as essential in creating a profession of committed and effective teachers (Tschannen Moran & Woolfolk-Hoy, 2001).

Bandura (1986) suggested that there were four primary experiences that shape self-efficacy: mastery experiences, vicarious experiences, social persuasion, and physiological/emotional states. Of these, Bandura noted that mastery experiences were the most powerful and posited that perceptions of self-efficacy for a given task is related to the individual having more positive (successful) experiences in that task. This is supported by a study that reported the more time a preservice teacher spent on leadership related activities, the more their leadership self-efficacy increases (McKim & Velez, 2017).

Vicarious experiences take place before and during the student teaching experience. The experience of observation and reflection can be a strong opportunity to build self-efficacy in the absence of mastery experiences (Bandura, 1977). In teacher preparation programs, these observation activities can include watching other student teachers as part of a teaching methods or other preparatory class, observing cooperating teachers during field experiences or during student teaching, and observing first year teachers or teachers from other fields. This list is not exhaustive, but all of the included items have been shown to increase self-efficacy in pre-service teachers (Wolf, Foster, & Birkenholz, 2010; Knobloch, 2001).

The element of social persuasion has been defined as positive feedback or encouragement on one's ability to complete a task successfully. This feedback is most often in the form of communication from a cooperating teacher, but may also include feedback from university

supervisors, teacher educators, or peers (McKim & Velez, 2016). Wolf et al. (2010) noted that written and verbal feedback increased self-efficacy in student teachers. Another study found that providing formal structure to the feedback showed less increase in self-efficacy than unstructured feedback (Edgar et al., 2009).

The last element listed by Bandura (1986) as a factor of self-efficacy are the combined ideas of physiological, emotional, and/or psychological states. These include the thoughts and feelings one is experiencing prior to, during, and after completing a task. There is limited research in agricultural education on this topic. One author suggested that this was due to difficulty in measuring the construct (Wolf et al., 2010) while another suggested that the more positive feelings are during or following an experience, the more self-efficacy will result from it (Clark et al., 2015).

With a foundation built on these four sources of self-efficacy development, and a review of the literature, the authors developed the conceptual model shown in Figure 1.

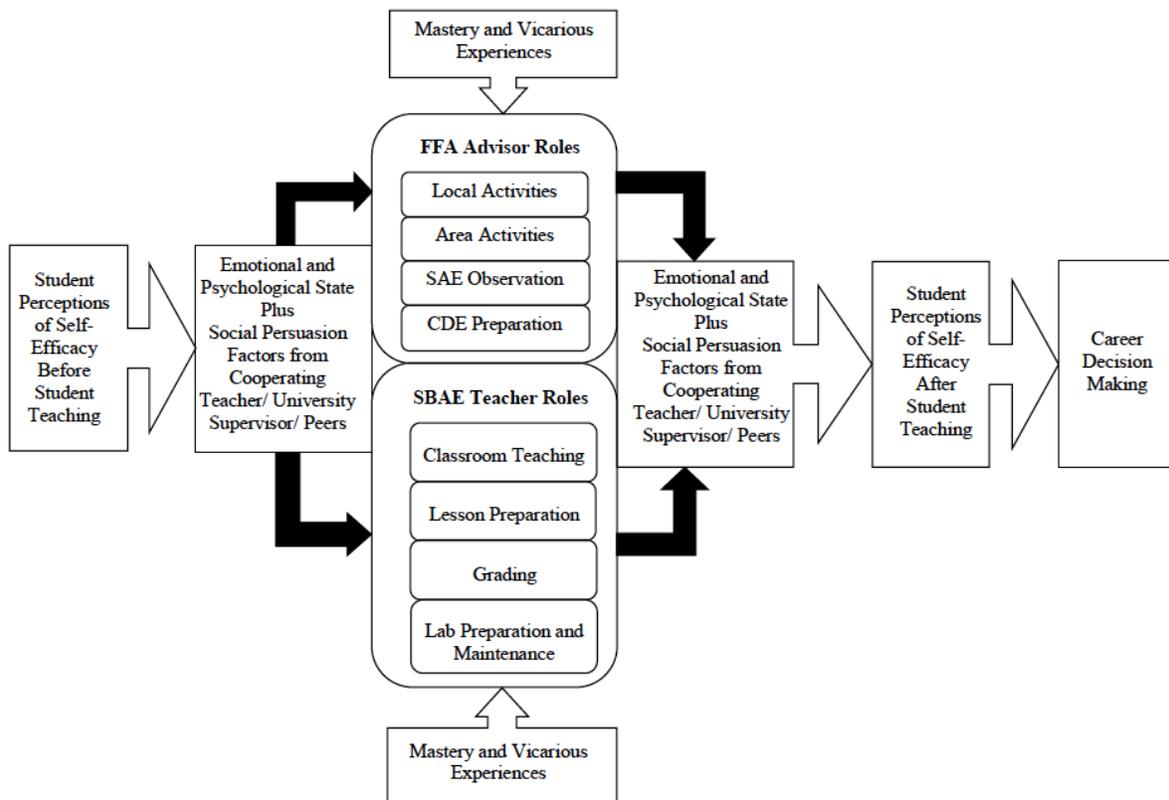


Figure 1. Conceptual model of self-efficacy development during the student teaching experience.

The model is based on the premise student teachers enter their placement experience with a certain level of self-efficacy from prior classes and experiences and, during the student teaching rotation, have a series of mastery and vicarious experiences. The impact of these experiences are influenced by emotional and psychological states and further shaped by social persuasion factors including interactions with peers, cooperating teachers, university supervisors, faculty as well as persons outside the student teaching experience. The unique interaction of

these four factors shape the student's sense of self-efficacy following student teaching and may influence individual decisions to enter the profession as a teacher in secondary school based agricultural education programs.

Purpose and Objectives

There is an established connection between levels of self-efficacy based on the amount of time spent engaged in an activity (Krysher, Robinson, & Edwards, 2015; McKim & Velez, 2017). Furthermore, there is a relationship between self-efficacy and career longevity (Blackburn & Robinson, 2008; Caprara et al., 2003 1992; Walker et al., 2004). The connection between volume of experience and self-efficacy, burnout, and potential career longevity provided the impetus for this programmatic evaluation of student teacher hours. This study is not an investigation into student teacher self-efficacy, it extends previous research of student teacher time allocation (Torres & Ulmer, 2007; Robinson et al, 2010) and provides a snapshot of one group of student teachers in west Texas by documenting how placement time was allocated. The objectives guiding this study were to:

1. Describe the number hours spent by student teachers in the categories of FFA advisor, SBAE teacher, college student, adult educator, and other professional responsibilities as well as more specific sub-categories.
2. Describe the time spent observing, preparing, and teaching by the cohort through the progression of the student teaching experience.
3. Describe the differences in hour allocation among the cohort in the categories of FFA advisor, SBAE teacher, college student, adult educator and other professional responsibilities.
4. Compare the hours spent by individual student teachers in the aggregate categories of FFA advisor and SBAE teacher.

Methods

Student teachers from the Spring 2017 cohort at Texas Tech University ($N = 15$) were used as the source of data. Utilizing a provided Microsoft Word template, based on an instrument developed by Torres and Ulmer (2007), students completed weekly work summaries and reflections. Student teachers used these documents to self-report the number of hours spent in: 1) Observing Cooperating Teacher, 2) Preparation for Instruction, 3) Classroom and Laboratory Teaching, 4) Laboratory Preparation and Maintenance, 5) Grading/Scoring of Student Work, 6) Administrative Duties/Program Management, 7) Professional Activities (meetings, in-service), 8) SAE Observations and Recording, 9) FFA Activities – Local, 10) FFA Activities – Area, District, and/or State, 11) CDE Preparation, 12) Adult Education, and 13) Conferencing with Cooperating Teacher. The reflective portion of these reports provided brief explanations of how the time was specifically used and any thoughts or reflections the students had on their experiences. These reports were emailed to the university supervisors and cc'd to a common recipient who managed the files and helped facilitate data entry.

The reports were analyzed for completeness and any missing records were addressed by contacting the individual students for clarification or correction. The self-reported hours were totaled and entered into Microsoft Excel worksheets by week. The 13 categorical totals were compiled into a separate cohort data sheet. In each of the 13 areas, means, standard deviations, and percentages were calculated using the included functions in Microsoft Excel and verified using processes provided by Field (2014) and Lane (n.d.).

The researchers generated a broader view of the cohort’s experience by grouping the thirteen teaching areas into five different general categories within the student teaching experience: 1) Learning as a Student, 2) Serving as a SBAE Teacher, 3) Other Administrative Duties, 4) Advisor Duties, and 5) Adult Education. The data sets for these general categories were analyzed using descriptive statistics for mean, standard deviation, percentages of the sum of all time reported, and percentages of the category.

Findings

The first research objective was to describe the hours dedicated by the cohort in generalized categories specified by the researchers (Table 1). During their clinical experience, the 15 student teachers averaged 713.8 hours of engagement over their 15-week placement. The average time spent serving as an FFA Advisor was 281.7 hours and accounted for 4,226 (39.5%) of the total time spent by the cohort. The next largest block of time included activities serving as a SBAE teacher with 4,067 hours allocated ($M = 271.1$, 38.0%). Activities as a preservice college student was the next largest allocation of time at just over 1957 hours ($M = 130.5$, 18.3%) followed by other professional and administrative duties, and adult education.

Table 1
Time Allocation of Preservice Teachers in General Categories

Activities	Hours	<i>M</i>	<i>SD</i>	% of Time
FFA Advisor	4,226.0	281.7	166.6	39.5
SBAE Teacher	4,067.0	271.1	126.2	38.0
College Student	1,957.4	130.5	80.8	18.3
Administrative / Professional	325.0	21.7	39.1	3.0
Adult Educator	132.0	8.8	17.4	1.2
Total	10,707.4	713.8	155.4	-

The instrument contained 13 categories that provide a more detailed picture of time allocation (Table 2). Serving as an FFA Advisor represented the largest allocation of time with efforts dedicated to FFA activities at the area, district, or state level accounting for 1719.0 hours (16.1%) of the cohort’s total time over 15 weeks with a per-student mean of 114.6 followed by 1,000.0 hours of SAE observations. Local FFA activities represented 777.0 hours, and CDE preparation 730.0 hours. Serving as a SBAE teacher represented the next largest allocation of time. Within the category, classroom instruction accounted for 2,310.5 hours (21.6%) of the total time invested by the cohort, followed by lesson preparation at 904.0 hours, grading (530.0 hours), and laboratory preparation and maintenance (322.5 hours).

Activities associated with being a college student represented the third largest time usage. Observing the cooperating teacher accounted for 1,306.5 hours (12.2%). Corporately 650.9 hours were spent meeting with the cooperating teacher (6.1%). Administrative activities accounted for the next largest block of time with program administration (e.g. membership, stock show entries) accounting for 199.5 hours (1.9%) and other professional obligations (staff meetings, professional development, staff duty) representing 125.5 hours (1.2%) of the cohort total.

Table 2

Distribution of Hours Among Student Teachers for Specific Activities Associated with Serving as FFA Advisor, Secondary Instructor, Student, and Administrative/Professional

Activity	Hours	<i>M</i>	<i>SD</i>	% of Total Time	% of Category
<u>FFA Advisor</u>					
Area, District, State FFA Activities	1,719.0	114.6	132.4	16.1	40.7
SAE Observations	1,000.0	66.7	101.0	9.3	23.7
Local FFA Activities	777.0	51.8	55.9	7.3	18.4
CDE Preparations	730.0	48.7	22.1	6.8	17.3
<u>SBAE Teacher</u>					
Classroom Instruction	2,310.5	154.0	80.2	21.6	56.8
Lesson Preparation	904.0	60.3	40.0	8.44	22.2
Grading	530.0	35.3	17.4	4.95	13.0
Lab Preparation and Maintenance	322.5	21.5	29.2	3.01	29.2
<u>College Student</u>					
Observing Cooperating Teacher	1,306.5	87.1	60.8	12.2	66.8
Meeting with Cooperating Teacher	650.9	43.4	30.6	6.1	33.2
<u>Administrative / Professional</u>					
Program Management	199.5	13.3	32.7	1.9	61.4
Professional Activities	125.5	8.4	7.7	1.2	38.6

The second objective was to examine the progression of time spent observing cooperating teachers, preparing for instruction, and teaching throughout the progression of the clinical experience. Table 3 provides the mean time spent by the cohort in the three categories.

Table 3

Progression of Time Spent Observing, Preparing, and Teaching by Preservice Teachers

Interval	Observing		Preparing		Teaching	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	28.70	20.91	11.10	7.92	19.10	13.92
2	17.57	12.25	11.50	10.08	38.00	29.32
3	12.60	10.63	9.60	6.90	24.30	17.02
4	12.77	14.63	15.10	10.90	32.40	22.30
5	15.47	14.73	13.00	11.30	40.30	19.44

Note: The weekly reports were aggregated into five three-week intervals.

The amount of time student teachers spent observing (Figure 2) was highest in the first three weeks ($M = 28.70, SD = 20.91$), decreased through the second ($M = 17.57, SD = 12.25$) and third ($M = 12.60, SD = 10.63$), before increasing during the last phase of the student teaching experience. There was an increase in the time spent preparing for instruction from the first interval ($M = 11.10, SD = 7.92$) to the second ($M = 11.50, SD = 10.08$) before a drop in the third interval ($M = 9.60, SD = 6.90$) and a peak in the fourth ($M = 15.10, SD = 10.90$). Finally, time spent preparing for instruction decreased in the fifth interval ($M = 13.00, SD = 11.30$). The time student teachers spent teaching classes was the lowest during the first interval ($M = 19.10, SD = 13.92$) and increased in the second interval ($M = 38.00, SD = 29.32$). There was a decrease of hours spent teaching in the third interval ($M = 24.30, SD = 17.02$) before increasing through the remainder of the student teaching experience.

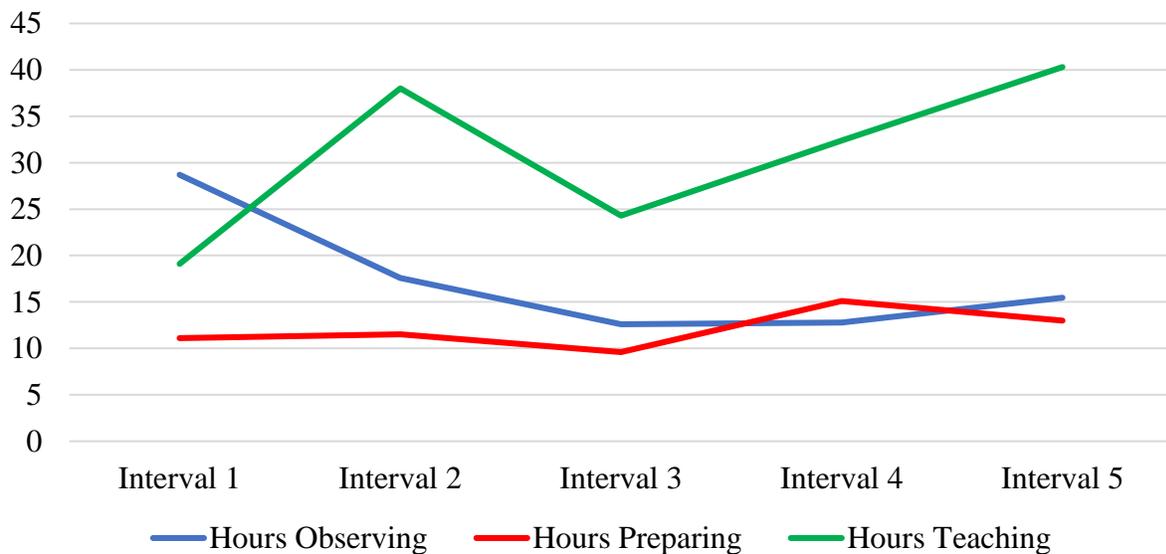


Figure 2. Visual representation of the progression of time (in hours) spent observing, preparing, and teaching by preservice teachers over five three-week intervals.

The third objective sought to describe the range in time allocation among individual preservice teachers in the five designated areas of work (Table 4). The amount of time spent as an FFA advisor had the greatest range of time reported over the 15-week experience at 565.5 hours ($M = 281.7, SD = 166.6$). Activities associated with being a SBAE teacher ($M = 271.1, SD = 126.2$) had the second largest range of time allocation at 431.5 hours. The range of time allocation for activities associated with being a student (291.5), program manager (160.5), and adult educator (70.0) showed similar levels of dispersion.

Table 4
Time Allocation of Preservice Teachers in General Categories

Activity	Minimum	Maximum	Range	<i>M</i>	<i>SD</i>
FFA Advisor Duties	92.5	658.0	565.5	281.7	166.6
Secondary Instructor	111.5	543.0	431.5	271.1	126.2
Student	33.5	325.0	291.5	130.5	80.8

Administrative / Professional	1.0	161.5	160.5	21.7	39.1
Adult Educator	0.0	70.0	70.0	8.8	17.9

The fourth objective sought to compare the number of hours spent by individual student teachers within the activities associated with serving as an FFA advisor and SBAE teacher. The total hours reported by individuals in the cohort in roles associated with these roles are shown in Table 5. Six students accumulated hours that were between one and two standard deviations from the mean and three students had scores that were beyond two standard deviations. One of these (Student 3) was the highest in hours spent (543) as an instructor equivalent to 2.16 standard deviations above the mean. However, this student was within one standard deviation in hours as an advisor. Students 1 and 11 were the two highest in hours spent as and FFA advisor and were and the lowest in hours spent as an instructor. Student one recorded 376.3 hours more than the mean as an advisor and 157.1 hours below the mean as an instructor. In the same categories, student 11 was above the mean by 355.8 hours as an advisor and 159.6 hours below the mean for serving as a classroom instructor. Three students reported scores that were below the mean in both categories and the remaining 12 students were above the mean in one category and below in the other. A visual representation of the individual student data in reported hours is presented in Figure 3.

Table 5

Hours Spent by Individual Student Teachers in the Roles of FFA Advisor and SBAE Teacher

Student	FFA Advisor ($M = 281.7$ $SD = 166.6$)		SBAE teacher ($M = 271.1$ $SD = 126.2$)	
	Reported Hours	Deviation	Reported Hours	Deviation
S1	658.0	376.3	114.0	-157.1
S2	262.0	-19.7	441.0	169.9
S3	178.0	-103.7	543.0	271.9
S4	220.0	-61.7	364.0	92.9
S5	188.0	-93.7	426.0	154.9
S6	92.5	-189.2	189.0	-82.1
S7	307.5	25.8	286.5	15.4
S8	264.0	-17.7	296.5	25.4
S9	349.0	67.3	157.5	-113.6
S10	196.0	-85.7	129.5	-141.6
S11	637.5	355.8	111.5	-159.6
S12	114.0	-167.7	262.0	-9.1
S13	367.0	85.3	192.0	-79.1
S14	95.0	-186.7	333.0	61.9
S15	297.5	15.8	221.5	-49.6

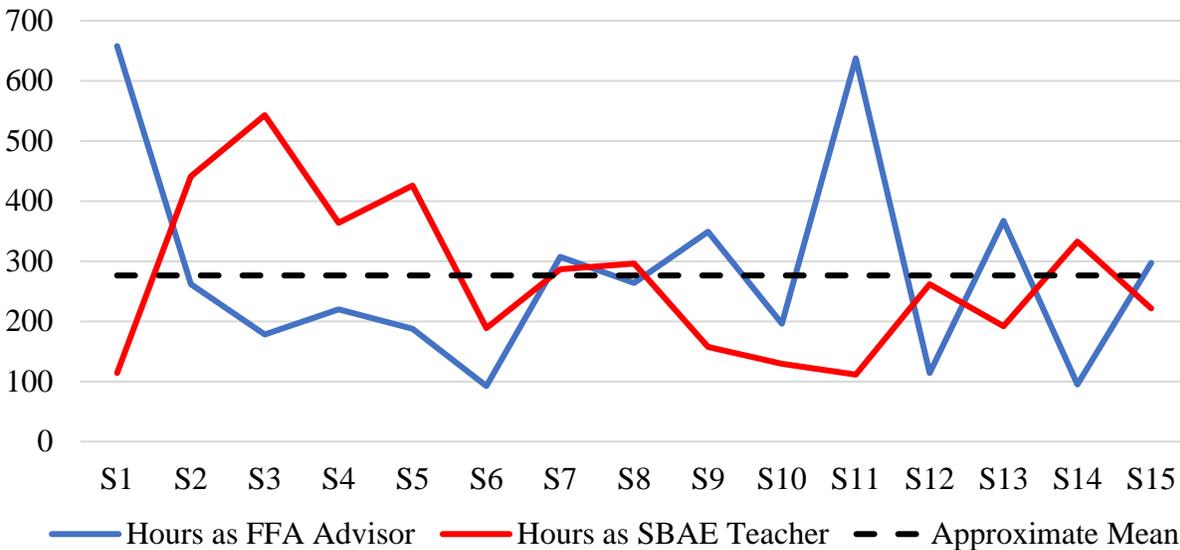


Figure 3. Individual student hours in the roles of SBAE teacher (Instructor) and as an FFA Advisor (Advisor). The detail level of the graph required creating a visual approximation means by averaging the means for the two categories and inserting that value for all points.

Conclusions, Implications, and Recommendations

During the clinical experience, preservice teachers collectively dedicated over three quarters of their time as FFA advisors and secondary classroom instructors and related activities. This is consistent with previous research (Paulsen, Smalley, & Retallick, 2016; Harlin et al., 2002). Within these areas, the most time was dedicated to serving as an FFA advisor (39.5%) compared with 38% of the total time spent as a secondary classroom instructor. This result conflicts with the importance placed on teaching noted by Smalley et al. (2015a; 2015b) and the results of Torres and Ulmer (2007) who reported students spending the most time in classroom teaching.

When analyzing data for more specific activities, the largest portion of time was spent in the classroom as an instructor followed by advising the FFA chapter at the regional and state levels, observing the cooperating teacher, and SAE supervision. What was most notable across these, and other, categories were the variation of hours among the student teachers. Across the cohort, direct classroom instruction averaged 154 hours ($SD = 80$), regional and state FFA activities averaged 115 ($SD = 132$), SAE observations and visits averaged 67 hours ($SD = 101$), and observation time of the cooperating teacher averaged 87 hours ($SD = 61$). These dispersions suggest that individual student teachers are having widely differing placement experiences in all areas of agricultural education.

This disparity among time allocation is reinforced by the findings of objectives three and four. Among the three largest uses of time, there was a 565.5-hour range of time for FFA advising activities, 431.5 hours for activities associated with serving as a secondary instructor. When looking at hours spent by individuals in the roles of FFA advisors and secondary instructors, the differences in experiences become clearer. The two students with the most hours

as FFA advisors recorded time over 350 hours above the mean ($M = 271.1$) yet were over 150 hours below the mean ($M = 281.7$) as SBAE teachers. Conversely, the individual reporting the most hours as a secondary instructor (543 hours) was over 100 hours below the group average as an FFA advisor.

While no two preservice teachers will have identical student teaching experiences, it is vital to ensure student teachers are confident and qualified in all areas before they are certified. Krysher, Robinson, and Edwards (2015), found that student teachers who spent more time teaching during their placement time were more self-assured about their abilities to teach. McKim and Velez (2017) reported an increase in self-efficacy in specific areas of agricultural education with an increase in the time spent in the respective areas. Studies outside of agricultural education provide similar findings. Dorel, Kearny, and Garza (2016) noted a relationship between the length of the student teaching experience and the participants perception of teacher efficacy. Prieto and Altmaier (1994) reported increased teaching self-efficacy in graduate teaching assistants who had received higher levels of training or experience. Similar relationships were reported in nursing students (Wilson & Byers, 2017) and employees relating their computer self-efficacy (Fagan, Neil, & Woodridge, 2003).

The implication of the dis-similarities among the time allocation of the student-teachers is a possibility for a corresponding difference in positive experiences and self-efficacy among the roles required of an agricultural educator. This is a key point in education as diminished self-efficacy has been associated increased levels of feelings of burnout (Skaalvik & Skaalvik, 2010), increased instances of physical or psychological ailments (Wang, Hall, & Rahimi, 2014) with a lowered self-projection of longevity in the field (Pfifstner-Eden, 2016; Wang, et al, 2014). This connection between low self-efficacy and teacher longevity in the profession also pertains to preservice teachers choosing to enter the field (Rots, I., Aelterman, A., Vlerick, P., & Vermeulen, K, 2007).

It is recommended that more thorough and detailed guidelines are established by this, and other teacher preparation programs regarding time commitment and allotment expectations. Prior to the beginning of the field experience, these expectations should be clearly communicated to the members of the student teaching cohort. Additionally, a clear line of communication needs to be established with cooperating centers to help assure that student teachers are getting a well-rounded, complete experience and spending a sufficient number of hours completing the diverse job responsibilities of an agricultural science teacher.

The distribution of time spent observing by student teachers at Texas Tech University started out high then decreased through the conclusion of the student teaching experience until the slight increase through the final weeks of student teaching. This is consistent with the results of Torres and Ulmer (2007) with the exception of the increase in the final interval. Additionally, this cohort was consistent in the amount of time they spent planning for instruction as Torres and Ulmer (2007) suggested should happen. Wentz (2001) outlined three phases of student teaching: 1) orientation and observation, 2) assisting, and 3) assuming responsibility in the total school program. The student teachers in this cohort followed these phases in the teaching aspect with the exception of the drop reported in hours spent teaching in the third-time interval. This

reduction in hours spent teaching is potentially due to the timing of Career Development Events and livestock shows in Texas.

At the university level, the individuals involved in planning for the student teaching experience determine guidelines to ensure student teachers are receiving opportunities to practice skills during that time of year. Torres and Ulmer (2007) stated, there is a need for a “phase-out” period of student teaching. As student teachers reported spending the most time teaching in the final weeks of their experience, it is recommended that a plan for phasing out of the role of the teacher be outlined as an expectation. It is further recommended that cooperating teachers and administrators be invited to a professional development training hosted by the university prior to the beginning of the field experience. This training should outline expectations for both the student teacher and cooperating center. During the student teacher placement process, teacher preparation programs should ensure that selected cooperating teachers will provide opportunities in all aspects of the agricultural education program. It is imperative that cooperating teachers are willing and prepared to involve their student teacher and allow them to be active program participants (Jones, Kelsey, & Brown, 2014).

The data presented is a descriptive snapshot of one undergraduate agricultural education program and all findings are limited to the programmatic scope of the study. However, these findings prompted questions in the researchers regarding the nature of agricultural education and the three- circle model. If the model of agricultural education is based on the three circles of classroom instruction, FFA, and SAE; are the three-circles equal? If so, how do we as teacher educators convey the concept of a balanced program? Or is the role of the of the FFA advisor more time-consuming than serving as a classroom teacher? Further discussions of statewide, regional, and national trends may clarify this, as well as generate acceptable parameters for time allocation in the diverse areas of a student teacher experience in agricultural education. The scope of this study should be increased to include additional universities from across the region and nation. Additional analyses should be made to compare time allocation to geographic location within Texas or the nation to help determine if regional differences exist in programmatic priorities.

Programs and instructors have localized control over the areas of emphasis and act within the preferences of their administration and community. It is recommended that a better understanding of the preferences, priorities of the partnering district and instructor are established prior to placement of students at a given site. With this information, university faculty may need to discontinue utilizing particular programs if the localized priorities do not align with desired teacher preparation outcomes.

One of the key components of programmatic improvement is a willingness and ability to take an objective and critical look at current practice. The faculty at Texas Tech University are taking the first steps in this process. We encourage our colleagues to be willing to examine their own programs and practices and look forward to the discussions that will follow. Moreover, a critical look should be placed on the priorities of the communities of local high school agricultural education programs. These localized needs and desires should then be compared with State and National Association priorities to investigate alignment and discuss disparities.

This careful examination will aid teacher preparation programs in agricultural education to adjust where needed in order to provide the best possible teacher candidates.

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