Analyzing Time Spent as an FFA Advisor and School Based Agricultural Education Teacher During Two Student Teaching Cohorts

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Introduction/Theoretical Framework

Teaching secondary level agriculture is a challenging and time-consuming profession with a high attrition rate. In every year since 1965, there have been unfilled teaching vacancies in the field of agricultural education (Kantrovich, 2007). Roberts, Greiman, Murphy, Ricketts, and Harlin (2009) and Kantrovich (2007) noted a source of the teacher shortfall is only a fraction of eligible college graduates were entering the field of teaching. According to Smith and Rayfield (2017), the student teaching process is a high-impact, real-world experience that creates change in student teachers. The number of newly certified teachers not entering the profession begs the question; is part of the change in student teachers a change in intention to teach? This study is part of a larger programmatic evaluation of teacher certification activities at Texas Tech University in an effort to identify strengths and opportunities for improvement.

Self-efficacy is defined as the perceptions of an individual regarding their capabilities, both cognitive and physical, to plan, organize, and execute certain activities (Bandura, 1986). In the field of education, Pfitsner-Eden (2016) reported increases in teacher self-efficacy were associated with a diminished intention to quit the profession. In agricultural education, Krysher, Robinson, and Edwards (2015) found an increase in self-efficacy of teaching skills when there was an increase of hours spent teaching as a preservice student. With a framework rooted in the importance of self-efficacy on teacher retention as well as the connection between time invested in an activity and reported levels of self-efficacy; researchers at Texas Tech University began an evaluation of its teacher preparation program. The purposes of this investigation are to describe the hours spent by student teachers in the areas associated with being an FFA advisor and secondary school based agricultural education (SBAE) teacher during their student teaching placement as well as compare those hours to data from the previous year.

Methodology

As part of their program requirements, student teachers from the teacher preparation cohort at Texas Tech University in 2017 ($N = 15$) and 2018 ($N = 21$) completed weekly reports utilizing a template used by Torres and Ulmer (2007). These reports provided a record of time allocation in 13 categories and an opportunity for reflection. Specific to this study, students reported hours participating in four areas associated with FFA advisor duties and four areas included in the responsibilities of a SBAE teacher. The specified areas of FFA advisor were 1) SAE observations and recording, 2) Local FFA activities, 3) Area, district, or state FFA activities, and 4) CDE preparation. Categories associated with serving as an SBAE teacher included 1) Preparation for instruction, 2) Classroom/laboratory teaching, 3) Laboratory preparation and/or maintenance, and 4) Grading/scoring student work.

The reports were checked for completeness and accuracy. Any discrepancies or issues were corrected following a conversation with the student prior to data entry. All data were compiled into Microsoft Excel and categories were aggregated into the specified areas of FFA advisor and SBAE teacher. Basic descriptive statistics were calculated in Microsoft Excel and verified using processes provided by Field (2014) and Lane (n.d.). The data were entered into SPSS for verification and calculation of a paired-sample *t*-Test.

Findings

The objectives of this study were to describe and compare time spent by student teachers in the areas of FFA advisor and SBAE teacher duties over two different cohorts. 2017 students reported slightly fewer hours (M = 281.7, SD = 166.6) as an FFA advisor than students in 2018 (M = 327.1, SD = 174.9). There was a similar increase in hours as an SBAE teacher from 2017 (M = 271.1, SD = 126.2) to time spent by 2018 students (M = 309.9, SD = 108.0). A paired samples t-Test for the combined 2017 and 2018 data sets ($t(35) = .38$, $p = .71$) showed no significant differences between time spent as an FFA Advisor and SBAE teacher . Data for the sub-categories are presented in Table 1.

Table 1
Allocation of Hours in the Roles of FFA Advisor and SBAE Teacher for Two Student Teaching Cohorts from 2017 (N = 15) and 2018 (N=21)

	2017 Cohort		2018 Cohort	
Activity	*M*	*SD*	*M*	*SD*
FFA Advisor				
SAE Observations	66.7	101.0	142.9	163.7
Area, District, State FFA Activities	114.6	132.4	72.4	53.7
CDE Preparation	48.7	22.1	66.5	51.3
Local FFA Activities	51.8	55.9	45.0	47.4
SBAE Teacher				
Classroom Instruction	151.0	80.2	179.9	59.8
Lesson Preparation	60.3	40.0	78.6	46.3
Grading	35.3	17.4	32.1	18.7
Laboratory Preparation and Maintenance	21.5	29.2	25.3	19.1

Conclusions, Implications, and Recommendations

There is a balance of time allocated in the general areas of FFA advisor and SBAE teacher across the two cohorts. The amount of time for each role increased from 2017 to 2018. The small population size of the two groups prohibits calculations to determine if the change is significant. Standard deviations of the reported means as an SBAE teacher point to a possible narrowing of experience variations by the student teachers in the second cohort. Krysher et al. (2015) described an increase in self-efficacy with an increase in the time spent in the corresponding areas. These changes could indicate a more consistent and higher level of self-efficacy among the second group. The literature indicates implications on the longevity and turnover intentions based on self-efficacy levels.

As part of an ongoing program evaluation, monitoring specific student teacher activities should be considered a best-practice. Study replication at a national level would allow programs to determine if the differences between their student teacher activities are significantly different from a national average and possibly lead to the development of professional guidelines for recommended activity levels. Additionally, the scope of this study should be broadened to include self-efficacy levels of student teachers to more accurately determine potential correlations and aid in setting up a longitudinal study on pre-service teacher self-efficacy longevity in the profession.

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