

The Relationship of Prior FFA Membership on Perceived Ability to Manage an FFA Chapter

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Abstract

In order to fill the need in the agriscience teacher shortage, preservice agriscience teacher education needs to seek preservice teachers who may not have had a traditional school-based agriculture background. The influx of new teachers without a school-based agricultural education background brings both opportunities and challenges. Gaps in needs between those teachers who had and those teachers who did not have school-based agricultural education and FFA membership have different teacher professional development needs. This study investigated the professional development need areas based on a needs assessment that investigated knowledge, relevance, and mean weighted discrepancy scores of agriscience teachers who were or were not FFA members. Participants across both groups indicated professional development needs for FFA chapter management. Teachers who were not previously FFA members identified stronger needs across 11 of 13 items. There was a significant difference found between the two groups for four of the 13 chapter management items. Recommendations for future research and programmatic development consisted of the consideration of specific sessions of a basic FFA knowledge with a second session that focuses on technical skill attainment.

Keywords: professional development; FFA membership; needs assessment; chapter management

Introduction

The role of any agriscience teacher is a constant balancing act between classroom and lab instruction, Supervised Agricultural Experience (SAE) projects, as well as the local FFA chapter. Talbert et al. (2014) noted “the local FFA chapter is the center of activity in the structure of the [National FFA] organization” (p. 413). Further, advising an FFA chapter can be an extremely arduous task with no replicable model fit for all teaching situations (Talbert et al., 2014). Qualities of a successful FFA advisor are high motivation, enthusiasm, and providing initial introduction and information about the FFA to students (Phipps et al., 2008; Talbert et al., 2014). Teachers early in their career must become familiar with the program and activities while existing teachers should work to stay informed of changes in programs and obligations (Talbert et al., 2014).

An online training created by The National FFA Organization on effective chapter management lists 13 items an FFA advisor must address (National FFA Organization, 2018). Recruitment, chapter constitution, roster management, chapter meetings, the program of activities, fundraising, award applications, ordering supplies, service projects, and banquet are all part of effective chapter management (National FFA Organization, 2018). Specifically, chapter management is defined by Phipps et al. (2008) as “supervising chapter activities on a year-round basis, recruiting students, instructing leadership and professional development, building school and community

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support for the program, getting all members involved, and coaching members in the preparation for CDE and leadership program participation” (p. 417-418). For many years, the importance of previous membership in the FFA, as a characteristic for recruitment of possible agriscience teachers has been noted (Cole, 1984; Miller et al., 1984). Cole (1984) echoed the value of previous membership in the FFA when pre-service teachers are looking for their initial job placement out of high school. Additionally, Miller et al. (1984) recommended students who held an office within the National FFA Organization and/or received recognition from the FFA, should be encouraged to pursue a career in agricultural education.

There have been numerous studies (Garton & Chung, 1996; Layfield & Dobbins, 2003; Mundt & Connors, 1999; Myers et al., 2005; Ricketts et al., 2006; Roberts & Dyer, 2004) that researched in-service needs of agriscience teachers across career stages with several themes involving chapter management emerging. Most commonly it was found that teachers required additional training on how to manage and utilize a local advisory council, and parent and adult group support (Garton & Chung, 1996; Layfield & Dobbins, 2003; Mundt & Connors, 1999; Myers et al., 2005; Roberts & Dyer, 2004). Preparing FFA award and recognition applications was the second most frequently reported need for professional development (Garton & Chung, 1996; Layfield & Dobbins, 2003; Mundt & Connors, 1999; Ricketts et al., 2006). It was found that developing an effective public relations program for the local FFA chapter required attention for teachers of all teaching stages (Garton & Chung, 1996; Layfield & Dobbins, 2003; Ricketts et al., 2006). In addition, other studies reported needs for teacher professional development in chapter management. The additional chapter management areas most reported for in-service need were SAE planning and supervision; managing and planning local chapter activities; preparing teams for career development events (CDEs); as well as fundraising and financial management (Garton & Chung, 1996; Layfield & Dobbins, 2003; Mundt & Connors, 1999; Myers et al., 2005).

Shippy (1979) found previous FFA membership in high school and enrollment in agriscience courses in high school, as well as the number of teachers in their current agriscience department significantly influenced the teachers’ perceived competencies on numerous chapter management items. This study investigated the needs of beginning agriscience and agribusiness teachers with a focus on the influence of specific demographic factors impacting teachers’ perceived needs. Darling–Hammond and Bransford (2005) noted the impact of a teacher on their students, which can then be seen when a student becomes a teacher themselves. The authors pointed out that when students become teachers, they often teach how they themselves were taught (Darling–Hammond & Bransford, 2005). Similarly, it could be posited that FFA membership provides a foundational observation for those who become teachers. Thus, being a former member has implications on the foundations of chapter management, which will then be utilized as a teacher. These observations as a student can provide either a strong foundation or misconceptions, of what is required to be an effective FFA advisor and chapter manager. While learning nonetheless, observational learning influences philosophies on how to properly manage a chapter and should be considered when analyzing a teacher’s personal views (Darling–Hammond & Bransford, 2005).

Lortie (1975) recognized the above-mentioned type of learning as apprentice observation. Marx, Smith, Smalley, and Miller (2017) found students who had not previously been FFA members noted being unaware of certain “FFA lingo” made them feel left out in their major of agricultural education (p. 137). The non-FFA group within this study also remarked on how preservice teachers with previous FFA experience, especially those with officer experience, displayed a belief in a skill-set that would make them a successful agriscience teacher (Marx et al., 2017). Although this skill-set was not tested, a notion of a skill-set provided by experience is reflected in Miller et al. (1984) who recommended students with FFA officer experience to pursue a career in agricultural education.

Nearly 40 years have passed since the completion of Shippy's (1979) study without further research into the influence of FFA membership on teachers' development. A significant portion of current agriscience teachers were students of school-based agricultural education (SBAE) and were members of the FFA. Due to the large gap in the literature, research is required to further investigate the impacts of such factors on teacher perceived needs and further professional development.

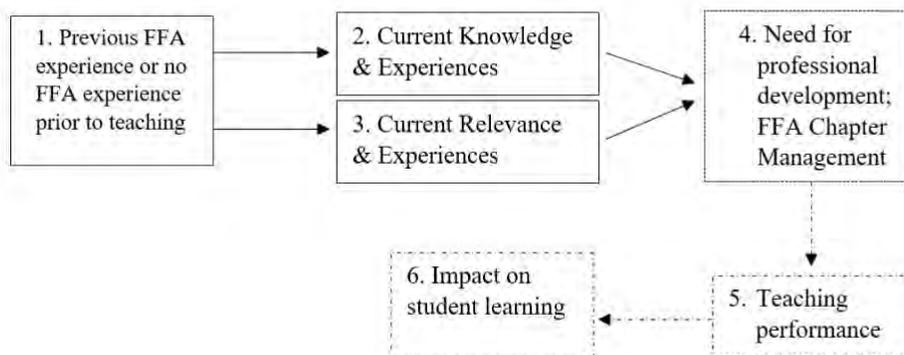
Theoretical and Conceptual Framework

Experiential learning is the foundational theory that provides a base for investigating differences between having been an FFA member or not. Dewey (1938) emphasized that learning is a result of reflecting on one's own experience. This study was outlined by how experience influences knowledge, relevance, and perceptions of teaching need. Bransford, Brown, and Cocking (2000) stated that teaching is learned through the following experiences: a) personal, b) peer to peer, and c) formal preparation experience. This investigation examined how FFA chapter management indicators related to teacher knowledge, relevance, and professional development needs based upon teacher personal experience. Determining the differences and describing needs can allow for better targeted professional development for agriculture teachers who were or were not FFA members. It is anticipated that improving the quality of instruction and chapter management could positively impact student learning and perhaps teacher self-perception.

Dewey (1938) explained continuity of experience. Continuity of experience explains how personal experience influences learning. Each current experience is influenced by previous experiences. Therefore, cognitive schema serves as a foundation of knowledge and relevance and is based on previous experience and is informed by future experiences (Bransford et al., 2000). Figure 1 presents the conceptual model that indicates how experiences in FFA influence teaching and chapter management. This study examined previous FFA experience (box 1 of the figure) and current knowledge and relevance (boxes 2 & 3) and the impact on (box 4) the need for professional development. Future studies could examine the teaching performance (box 5) and the impact on student learning (box 6). For the purpose of this study, the examination was between the different experiences the teachers had prior to their managing and advising an FFA chapter and their perceptions of their professional development needs.

Figure 1

Conceptual Model of How Prior FFA Experience Influences FFA Chapter Management



Purpose and Objectives

The purpose of this study was to describe the self-perceived level of FFA chapter management knowledge and relevance to the jobs of current agriscience teachers in Florida and to determine if a relationship existed between the self-perceived level of chapter management knowledge and

membership in past National FFA Organization among these teachers. Specific objectives of this study were:

1. Determine the need for professional development in the FFA chapter management area as reported by current agriscience teachers in Florida who were or were not FFA members.
2. Determine the difference between self-perceived levels of FFA chapter management need as reported by current agriscience teachers in Florida who were or were not FFA members.

Methods

Population and Sampling

The target population for this study was all agriscience teachers ($N = 366$) who registered for Chapter Officer Leadership Training (COLT) Conferences in Florida. Data were collected at six different dates as each area has an individual COLT conference. The COLT conferences were utilized due to these events having the highest attendance of agriscience teachers in the state. A hardcopy questionnaire was utilized during the individual teacher professional development sessions at each location and was collected face-to-face. A 73% response rate was achieved as a total of 269 teachers completed questionnaires, representing 54.1% of the total population of agriscience teachers in Florida.

The agriscience teachers who participated in this study were a majority white ($f = 243$; 90.3%), female ($f = 177$; 65.8%), held a bachelor's degree ($f = 198$; 73.6%), and taught an average of 8.8 years ($SD = 9.0$; Min. = 1.0; Max. 42.0). Slightly more teachers reported they taught at the high school level ($f = 147$; 54.6%) in a single teacher program ($f = 149$; 55.4%). A large majority of the teachers reported they had been an FFA member ($f = 185$; 68.8%), with slightly more reporting they were also enrolled in agricultural education classes while in high school ($f = 190$; 70.6%).

For the purpose of this study, teachers who were classified as an FFA member were teachers who self-reported being a member of a local FFA chapter at some point, without a specified length, during their K-12 education.

Instrumentation

Roberts and Dyer (2004) originally created the questionnaire used in this study with further modifications coming from Saucier et al. (2010), and Figland et al. (2017). The instrument's purpose was to investigate agriscience teachers' professional development needs. The instrument included seven sections that measured agriscience teacher needs in the areas of (a) instructional practices (20 items), (b) industry certifications (13 items), (c) technical agriculture (8 pathways; 58 items), (d) laboratory settings (16 items), (e) teacher development (5 items), (f) program management (21 items), and (g) personal and professional characteristics (16 items). Each section utilized two Likert-type scales (1 = *Low*; 5 = *High*) designed to measure teacher perceived current knowledge and perceived job relevance following the Borich (1980) model. A panel of experts consisting of five agricultural education faculty and six doctoral students, of which five were former agriscience teachers, established content and face validity. This review resulted in the deletion of several items as well as rewording multiple items to make them relevant for Florida agriscience teachers. Internal consistency reliability for the FFA chapter management items was .88 (Cronbach's alpha coefficient). For the purposes of this research, only data associated with FFA chapter management from the program management section of the instrument are presented.

Data Analysis

In order to address missing data due to item non-response, the data were analyzed for the *distribution of missingness* (Schafer & Graham, 2002). Schafer and Graham (2002) defined the

distribution of missingness as “a mathematical device to describe the rates and patterns of missing values and to capture roughly possible relationships between the missingness and the values of the missing items themselves” (p. 150). After missingness was analyzed, it was determined the data were missing at random with no relationship between the missing items. Single imputation was then used to fill in missing items (Schafer & Graham, 2002). The data were analyzed using SPSS version 25 for PC and Microsoft Excel. Descriptive statistics, including mean, standard deviation, frequency, and percentage, were used to describe the population of agriscience teachers who attended the COLT conferences.

In accordance with the Borich (1980) needs assessment model, objective one was addressed through Mean Weighted Discrepancy scores (MWDS). First, a discrepancy score for each participant for each item was calculated by subtracting the knowledge score from the relevancy score. Next, a weighted discrepancy score was computed for each participant for each item by multiplying the discrepancy score by the mean relevance score (Borich, 1980). MWDS were then calculated for each item by dividing the total of the weighted discrepancy score by the number of scores for that item. Lastly, items were ranked based on MWDS with the items with the highest MWDS showing the greatest area of need. Items with negative MWDS indicated an area where teachers did not display a need for professional development. Although there were items with negative MWDS in the overall data set, all items in the FFA chapter management group for both groups of teachers was found to display positive MWDS showing at least some need for training for both groups in all 13 competency areas. Independent sample t-tests using mean discrepancy scores (unweighted) for each item were used to address objective two. The mean discrepancy scores were calculated for each item by subtracting the knowledge score from the relevancy score. This is the same number as the number calculated in the first step of MWDS. An alpha level of .05 was set *a priori*.

Results/Findings

Objective one of this study was to determine the need for professional development in the area of FFA chapter management as reported by current agriscience teachers in Florida who were or were not FFA members. An analysis of the professional development needs in the FFA chapter management area as ranked by MWDS and separated by group is displayed in Table 1. The top five areas of need for teachers who were not FFA members were utilizing ag experience tracker (AET) (MWDS = 7.43); completing national chapter award application (MWDS = 7.38); completing FFA agriscience fair award application (MWDS = 7.25); completing FFA proficiency award application (MWDS = 7.21); and general strategies for coaching Career Development Events (CDEs/LDEs) (MWDS = 7.05). The top five areas of need for teach who were FFA members were completing FFA national chapter award application (MWDS = 6.54); completing FFA proficiency award application (MWDS = 5.99); completing FFA agriscience fair award application (MWDS = 5.90); chapter budgeting and funding (MWDS = 5.67); and completing FFA online membership roster (MWDS = 5.32).

Table 1
MWDS by Ranking for Chapter Management Items

Item	No FFA Membership (n=84)		FFA Membership (n=185)	
	Rank	MWDS	Rank	MWDS
Utilizing Ag Experience Tracker (AET)	1	7.43	6	5.25
Completing FFA national chapter award application	2	7.38	1	6.54
Completing FFA agriscience fair award application	3	7.25	3	5.90
Completing FFA proficiency award application	4	7.21	2	5.99
General strategies for coaching Career Development Events (CDEs/ LDEs)	5	7.05	7	4.92
Organizing Program Support Groups (FFA Alumni, booster club, etc.)	6	6.21	8	4.71
Developing SAE opportunities for students	7	6.13	9	4.53
Completing FFA online membership roster	8	5.96	5	5.32
Developing a complete agricultural education program (3 circle model)	9	5.64	12	3.54
Supervising SAE programs	10	5.6	10	4.12
Chapter budgeting and funding	11	4.92	4	5.67
Utilizing a local advisory committee	12	4.85	11	3.60
Completing the FFA Quality Chapter Planning Guide	13	3.38	13	3.52

When comparing, both groups displayed high levels of need in three of the same areas: completing national chapter award application; completing FFA agriscience fair award application; completing FFA proficiency award application. Additionally, both groups showed low areas of need in supervising SAE programs; utilizing a local advisory committee; and completing the FFA Quality Chapter Planning Guide. There were, however, differences between the needs of the two groups. The greatest area of need for teachers who were not FFA members was utilizing Ag Experience Tracker (AET), but for those who were FFA members, this item was ranked sixth. Inversely, those who were FFA members showed an area of need in chapter budgeting and funding (ranked 4th), while this item was ranked 11th for those who were not FFA members. Overall, both groups showed different levels of need for 11 of the 13 total FFA chapter management items.

Objective two was to determine the difference between self-perceived levels of FFA chapter management need as reported by current agriscience teachers in Florida who were or were not FFA members. An independent samples t-test was conducted to compare the discrepancy scores for those agriscience teachers who were FFA members and those who were not (Table 2). Unweighted mean discrepancy scores of both groups were compared for each of the 13 chapter management items. A significant difference was found between four of the 13 items including: developing a complete agricultural education program ($t(133) = -2.50, p = .014, \text{Cohen's } d = -0.3570$); developing SAE opportunities for students ($t(142) = -2.01, p = .047, \text{Cohen's } d = -0.2789$); general strategies for coaching Career Development Events ($t(145) = -2.64, p = .009, \text{Cohen's } d = -.03623$); and utilizing Ag Experience Tracker ($t(170) = -2.08, p = .039, \text{Cohen's } d = -0.2677$). The calculated Cohen's d indicated a small effect (Cohen, 1992).

Table 2
Independent Samples T-Test

Item	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Effect Size (Cohen's d)
Chapter budgeting and funding	0.51	130	0.608	0.10	0.19	0.0742
Completing FFA agriscience fair award application	-1.59	166	0.114	-0.32	0.20	-0.2062
Completing FFA national chapter award application	-1.08	154	0.282	-0.23	0.21	-0.1446
Completing FFA online membership roster	-0.75	152	0.453	-0.14	0.18	-0.1013
Completing FFA proficiency award application	-1.46	165	0.147	-0.31	0.21	-0.1895
Completing the FFA Quality Chapter Planning Guide	0.01	132	0.995	0.00	0.21	0.0010
Developing a complete agricultural education program (3 circle model)	-2.50	133	.014*	-0.47	0.19	-0.3570
Developing SAE opportunities for students	-2.01	142	.047*	-0.36	0.18	-0.2789
General strategies for coaching Career Development Events (CDEs/LDEs)	-2.64	145	.009*	-0.49	0.19	-0.3623
Organizing Program Support Groups (FFA Alumni, booster club, etc.)	-1.82	162	0.07	-0.37	0.20	-0.2390
Supervising SAE programs	-1.61	141	0.109	-0.32	0.20	-0.2248
Utilizing a local advisory committee	-1.67	148	0.097	-0.34	0.20	-0.2275
Utilizing Ag Experience Tracker (AET)	-2.08	170	0.039*	-0.43	0.21	-0.2677

Conclusions and Discussion

Although all items in the FFA chapter management section of the instruments displayed at least some level of need by both groups of teachers by having all positive MWDS, the greatest area of need for each group were found by ranking each item from highest to lowest numerical values. Both groups, agriscience teachers who were FFA members and those who were not, displayed different levels of need for 11 of the 13 total FFA chapter management items (Table 1). Regardless of their past FFA membership, teachers need additional training for completing FFA national chapter award application, completing FFA agriscience fair award application, and completing FFA proficiency award application. This conclusion is consistent with previously completed needs assessments from other state programs (Garton & Chung, 1996; Layfield & Dobbins, 2003; Mundt & Connors, 1999; Ricketts et al., 2006).

Teachers who had not been FFA members have greatest need for professional development on the topics associated with using the Ag Experience Tracker (AET). A similar conclusion was not found in the literature which may be due to the AET not existing before 2006. Interestingly, however, the supervising and developing SAE program items were in the bottom half of items with a displayed

need for both groups. This is contrary to Garton and Chung's (1996) and Mundt and Connors' (1999) findings which reported levels of need in these areas.

The teachers who were previously FFA members were found to have their fourth highest level of need for professional development in chapter budgeting and funding. Layfield and Dobbins (2003), Ricketts et al. (2006), and Roberts and Dyer (2004) also found professional development needs for further development for teachers in the aforementioned areas. However, chapter budgeting and funding was ranked 11th by teachers who had not previously been FFA members. While those who were not FFA members in the past are not necessarily new to the FFA organization as a whole or are specifically new teachers, Layfield and Dobbins (2003) found that new teachers required professional development in this area.

Utilizing a local advisory committee, organizing program support groups, and developing a complete agricultural education program, and developing strategies for coaching CDEs were all found to have moderate to low levels of need for both groups. Previous research has also found a need for other groups of teachers in these areas (Garton & Chung, 1996; Layfield & Dobbins, 2003; Mundt & Connors, 1999; Myers et al., 2005; Roberts & Dyer, 2004).

Lastly, independent samples t-tests were conducted to determine any possible difference between the two groups for the items (Table 2). A significant difference was found for four of the items which include developing a complete agricultural education program; developing SAE opportunities for students; general strategies for coaching CDEs; and utilizing the ag experience tracker, with all items displaying a small effect size (Cohen's $d < .2$), showing there is a difference between the two groups for these specified items beyond what can be observed. Therefore, it can be concluded there are differences between the two groups beyond what is normally observable indicating separate professional development needs based on previous FFA membership for the population of this study.

Recommendations

Recommendations for future research should initially focus on identifying specific areas of needs in each of the chapter management item. Additionally, this further investigation should focus on the specific areas of need for each of the two groups and should be analyzed separately. As the two groups showed varying levels of need for almost all the items, further investigations into motives underpinning these differences should be investigated. Data gathered on previous experiences gained from apprentice observations (Lortie, 1975) could shed light on how a teacher determines what is important to their job as well as their own personal level of knowledge.

Data from teachers should be gathered as to what specific areas of the award applications, area of the three-circle model, specific CDEs/LDEs, part of SAE planning and supervision, and domain of advisory and support groups give both groups of teachers the most problems. Explicitly, information should be gathered from teachers to determine if they are just lacking the knowledge to complete functions of their job at an appropriate and efficient level, or do they display a level of need because they do not know how to manage a chapter which functions on a *winning* level. While the National FFA Organization provides an outlet for recognition of the hard work and success of students, the foundation on which these activities are set, and of which recognition is gained, should not be over-shadowed in pursuit of winning alone.

Misconceptions due to previous experience should also be accounted for when analyzing professional development for both those who have local chapter experiences as well as those who might not be familiar with the workings but have ideas of the organization (Darling-Hammond & Bransford, 2005). Those who were FFA members in the past might have felt they knew the inner

operations of their chapter until they were then tasked with managing student projects or organizing adults themselves.

Recommendations for future professional development for current [State] agriscience teachers would then rely on the further details uncovered in the above-mentioned research. The top areas of need, according to MWDS, should be first addressed, but to what degree will still need to be addressed (Borich, 1980). However, due to the evidence uncovered in this study, it is recommended professional development in the area of chapter management be conducted in two-part sessions or sessions split for those with a beginning level of knowledge and those with more developed knowledge. If provided in two sessions, the first session should focus on general knowledge about chapter management topics aimed at those teachers who lack previous personal experiences with said items. The second session should be provided and focus on the action steps for success once the primary level of knowledge has been equalized.

If split by knowledge level, more time could be spent describing the chapter management topic in the beginning session, which would allow for those in the developed section to focus on more technical knowledge. This is in line with recommendation for effective professional development put forth by Garet et al. (2001). Two sessions ensure content is on a level with the teachers' current needs, knowledge, and skills. Additionally, split sessions by groups can increase collective participation as Marx et al. (2017) found students who were not previously in the FFA sometimes felt left out by lack of experiences or not knowing the vernacular associated with the organization (Garet et al., 2001). Reform of the traditional professional development in the form of pair of teachers, one who was in the FFA previously and one who was not, could provide an opportunity for networking and idea-sharing, in addition to lengthening the entire professional development experience (Garet et al., 2001)

Finally, recommendations for practitioners are concentrated on communication and cooperation with researchers and those who deliver professional development. When teachers are asked to be more specific about their needs and desires, they should be honest and forthcoming with their thoughts. Teachers' sincere opinions on specific content, desire to split groups based on need, location of professional development will lead to more personalized information that can be utilized in their classroom, and local FFA chapters. Without the open and frank comments from teachers, professional development can only be formulated through speculation. Lastly, participation in professional development is the best way for practitioners, researchers, and those who deliver the professional development content to continue bettering not only the discipline of agricultural education but the lives of current students and FFA members who will become the next generation of agricultural educators.

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