BEGINNING AGRICULTURAL EDUCATION TEACHERS PERCEIVED LEVEL OF PREPARATION AND MENTORSHIP IDENTIFICATION

Abstract

The purpose of this descriptive study is to describe the level of preparation and identify mentors of 31 beginning Agricultural Education (Ag Ed) teachers in a southern region state. A majority of beginning Ag Ed teachers were male, currently in their first or second year of teaching, and graduated from one of the five Ag Ed teacher education institutions within the state. A majority were former FFA members, with some officer experience. Ag Ed teachers were the greatest influence to pursue a teaching career in agriculture; and new Ag Ed teachers intended to teach 25-30 years. In program management, beginning Ag Ed teachers were most prepared to build a positive image for the program and least prepared in using advisory committees. In the classroom, most were prepared to implement technology and work with administrators; however least prepared to assist students with personal problems. As a FFA advisor, beginning Ag Ed teachers were prepared to conduct officer elections and least prepared in completing degree applications. With SAE's, beginning Ag Ed teachers were prepared in supervising projects and least prepared in completing proficiency award applications. An Ag Ed teacher mentored new Ag Ed teachers most frequently for all areas of SAE, FFA, and in all but two areas of program management. No mentor was identified most frequently in the all classroom instruction and teaching technical agriculture areas. It is recommended that experienced teachers, state staff, and teacher educators collaborate with pre-service and beginning teacher programs to address these needs, such as using advisory committees, dealing with students' personal problems, and completing awards and applications. Experienced Ag Ed teachers must continue to informally mentor beginning Ag Ed teachers with the needs they encounter. Future research should include a longitudinal study to explore teachers' perceived level of preparation and mentors throughout their career. It is recommended that other states replicate this study to gain a broader perspective of beginning Ag Ed teachers' level of preparation and mentors who provided help.

Introduction

The process of becoming socialized into teaching is one of the most difficult stages in the professional development of teachers. Given comparisons to fields such as medicine and law, some have dubbed education the profession that "eats its young" (Halford, 1998). Indeed, experiences during the first year are often pivotal in the eventual success or failure of the beginning teacher. Varah, Thune, and Parker (1986) referred to teacher survival as "sink or swim." Beginning teachers must assume all responsibilities of teaching as if they were veteran teachers (Wildman, Magliaro, Niles, & Niles, 1992).

A beginning teacher must be aware of changes in technology, and must also be efficient in program planning, technical applications, classroom instruction, and classroom management (Brown, 2003). In addition, new teachers are often unaware of important deadlines, the culture of the school, and what really happens at the school (Merryman, 2006). As teachers become overwhelmed by the diverse population of students and their academic needs, an increasing number of beginning teachers leave the profession within three years (Kent, 2005).

Beginning Ag Ed teachers are no exception. In addition to teaching an ever-changing subject of technical agriculture, additional responsibilities include advising a FFA chapter, supervising SAE programs, and managing a total Ag Ed program (Peiter, Terry, & Cartmell, 2003; Ricketts, Duncan, Peake, & Uesseler, 2005). A well rounded prepared teacher should be able to integrate the FFA and SAE components as natural extensions of the classroom (Melodia & Meyer, 2001).

Preparing beginning teachers is very important, as under-prepared teachers are not able to fulfill the educational needs of students today. Standardized examinations are used to evaluate what a beginning Agricultural Education teacher should know, however, these tests can not assess skill level or competence in regards to what the novice agricultural educator should be able to do (Williams, 2004). With the implementation of No Child Left Behind, teacher educators face the ever increasing demand to prepare beginning Agricultural Education teachers who are prepared to excel on the first day of school.

Providing mentorship experiences, both formally and informally, are crucial in assisting beginning Agricultural Education teachers in making the transition into the profession (Peiter, Terry, & Cartmell, 2003). Positive feedback, guidance, and support from faculty and staff encourage beginning teachers to be confident efficacious teachers in Agricultural Education and Career and Technical Education (Knobloch & Whittington, 2002).

Theoretical Framework

Development of mentoring relationships is a component of the induction process. Kram's mentor theory, focusing on the career functions, serves as a theoretical framework for this study. Kram (1985) stated when a relationship provides both career and psychosocial functions "it best approximates the prototype of a mentor relationship" (p. 42).

Purpose and Objectives

The purpose of the study is to describe the level of preparation and identify those mentors who assisted beginning Agricultural Education teachers in a state located in the southern region. To achieve this purpose, the following objectives were developed:

1. Describe the characteristics of beginning Agricultural Education teachers in this state.

2. Describe the level of preparation in areas of teaching technical agriculture, classroom instruction, supervising SAE Programs, advising a FFA Chapter, and program management.

3. Identify mentors who assisted with in areas of teaching technical agriculture, classroom instruction, supervising SAE Programs, advising a FFA Chapter, and program management.

Procedures

The population for the study consisted of beginning Agricultural Education teachers in a southern state. The sample (N = 31) was a time and place sample representing first, second and third year teachers in the 2006-2007 school year.

A three part data collection instrument was utilized to gain beginning teachers' perceptions. The instrument researchers utilized was developed by Peiter, Terry, & Cartmell (2003) and used with their permission. It was constructed to identify specific persons who assisted beginning Agricultural Education teachers during the transition from pre-service to in-service teachers. Face and content validity were established using a panel of experts. Current faculty and administrators at three institutions examined the instrument for face and content validity prior to implementing the study. Few modifications were made when focusing the instrument to meet specific topics pertaining to Agricultural Education teachers in this state.

Part I consisted of 41 statements seeking the perceived level of preparation in five Agricultural Education program areas. These areas included program management (6), FFA (5), SAE (4), technical agriculture (12), and classroom instruction (13). A four-point Likert scale (1=Poor, 2=Fair, 3=Good, 4=Great) to assess respondent attitudes was used to gain respondents' opinion about each statement. The statement was general enough that all beginning teachers would have adequate knowledge and/or experience with each need to form an opinion. Part II consisted of 41 items asking respondents to identify a person that has assisted them the most with each specific need. The open response question allowed for name and/or title. The areas in parts I and II were identical. Part III consisted of reporting demographic characteristics.

Data were collected during a beginning Agricultural Education teacher seminar at the 2006 State Agriculture Teachers' Conference. In 2006-2007, respondents were beginning their first, second, or third year teaching Agricultural Education. Thirty-one of 31 beginning teachers responded, yielding a response rate of 100%. SPSS 10.0 was used to analyze data for level of preparation, mentor identification, and personal characteristics. For objectives 1 and 3, data were analyzed and reported by percents and frequencies. In objective 2, mean scores and standard deviations were analyzed for the reported data.

Findings

Objective one described personal characteristics of beginning Agricultural Education teachers (Table 1). Respondents were a majority male (51.6%) and had no years experience (38.7%), or completed one year (38.7%) teaching Agricultural Education. Beginning teachers in agriculture graduated from five teacher education institutions, with the highest producing nine (33.3%). Twenty-six (83.9%) respondents were former members of FFA; with officer experience held at the chapter (64.5%); regional (32.6%), and state (22.6%) levels. Respondents indicated another Agricultural Education teacher influenced them to pursue a career teaching Ag Education (41.9%) and beginning Agricultural Education teachers intended to teach 25-30 years (80.6%).

Table 1
Personal Characteristics of Beginning Teachers

Characteristics	*f*	%
Gender (N=31)		
Male	16	51.6
Female	15	48.4
Years of Teaching Experience Completed (N=30)		
None (beginning first year)	12	38.7
1	12	38.7
2	3	9.7
3+	3	9.7
University Providing Degree/Certification (N=27)		
A	9	33.3
B	8	29.6
C	5	18.5
D	4	14.8
E	1	3.7
Former FFA Member (N=31)		
Yes	26	83.9
No	5	16.1
FFA Leadership Officer Experience (N=31)		
Chapter	20	64.5
Regional	10	32.3
State	7	22.6
Influence to Teach Agriculture (N=31)		
Agricultural Education Teacher	13	41.9
Interest in Agriculture	10	32.3
Teacher Educator	5	16.1
Parents	3	9.7
Years Anticipated to Teach (N=31)		
1-5	0	0
6-10	2	6.5
11-18	2	6.5
19-24	2	6.5
25-30	25	80.6

The level of preparation for teaching in the agriculture subject areas were described (Table 2). Beginning Ag Ed teachers state they are most prepared to teach Introductory Agricultural Science (*M*=3.53, *SD*=.571) and least prepared in teaching students in Aquaculture (*M*=2.16, *SD*=.802).

Table 2
Mean Scores for the Level of Preparation for Technical Agriculture Content (N = 31)

Professional Need	*M*	*SD*
Introductory Agricultural Science	3.53	.571
Animal Science	3.35	.709
Agronomy (Plant & Soil Science)	3.20	.847
Greenhouse Production	3.03	.657
Horticulture	3.00	.632
Agri-Biology	3.00	.743
Agricultural Business/Sales/Marketing	2.86	.743
Environmental Science	2.71	.693
Equine Management	2.71	1.071
Agriculture Mechanics	2.53	.937
Wildlife Management	2.45	.768
Aquaculture	2.16	.802

Note: 1=Poor, 2=Fair, 3=Good, 4=Great

Level of preparation for classroom instruction is discussed (Table 3). Respondents perceived the area they were most prepared in, that being implementing technology (*M*=3.52, *SD*=.570) and working with administrators (*M*=3.48, *SD*=.570). Dealing with students' problems were identified least (*M*=2.90, *SD*=.790).

Table 3
Mean Scores of Level of Preparation for Classroom Instruction (N = 31)

Professional Need	*M*	*SD*
Implementing Technology	3.52	.570
Working with Administrators	3.48	.508
Assessing Student Work	3.35	.551
Working with Parents	3.35	.486
Obtaining Teaching Materials	3.29	.529
Classroom Discipline	3.26	.514
Student Motivation	3.26	.514
Dealing with Students' Individual Differences	3.16	.454
Managing Course Load	3.13	.629
Time Management	3.03	.547
Dealing with Students' Personal Problems	2.90	.790

Note: 1=Poor, 2=Fair, 3=Good, 4=Great

Advising an FFA Chapter is a responsibility of an agricultural educator. Preparation levels for FFA responsibilities are explained (Table 4). Respondents were most prepared in conducting officer elections (*M*=3.32, *SD*=.702), and least prepared in assisting students to prepare degree applications (*M*=2.52, *SD*=.769).

Table 4
Mean Scores of Level of Preparation for Advising FFA (N = 31)

Professional Need	*M*	*SD*
Officer Elections	3.32	.702
Planning Conferences	3.03	.605
Planning Program of Activities	2.81	.749
Work with Alumni Groups	2.61	.955
Preparing Degree Applications	2.52	.769

Note: 1=Poor, 2=Fair, 3=Good, 4=Great

Supervising students' SAE Program preparation levels are described (Table 5). Respondents reported they were most prepared in supervising students' projects (*M*=3.06, *SD*= 5.12) and least prepared for completing proficiency award applications (*M*=2.61, *SD*=.715).

Table 5
Mean Scores of Level of Preparation for Supervising Students' SAE Programs (N = 31)

Professional Need	*M*	*SD*
Project Supervision	3.06	.512
Developing Opportunities	2.94	.629
Livestock Show Procedures	2.71	1.101
Proficiency Award Applications	2.61	.715

Note: 1=Poor, 2=Fair, 3=Good, 4=Great

Preparation levels for program management were analyzed (Table 6). Respondents perceived they were most prepared to build a positive image for agricultural education (*M*=3.61, *SD*=.495), and least prepared in using advisory committees (*M*=2.48, *SD*=1.029).

Table 6
Mean Scores of Level of Preparation for Program Management (N = 31)

Professional Need	*M*	*SD*
Building a Positive Image for Agricultural Education	3.61	.495
Working with Colleagues	3.48	.677
Organizing Work	3.29	.529
Offering Course Variety	3.13	.428
Recruiting and Retaining Students	3.06	5.74
Using Advisory Committees	2.48	1.029

Note: 1=Poor, 2=Fair, 3=Good, 4=Great

Mentors who provided assistance with teaching technical agriculture were identified (Tables 7a and 7b). No mentor was the most frequent for Agri-biology (40.0%), Ag Business/Sales/Marketing (55.0%), Introductory Ag Science (38.9%), Agronomy/Plant and Soil

Science (52.4%), Aquaculture (52.4%), Environmental Science (58.8%), Horticulture (47.1%), and Wildlife Management (57.9%). In the other two areas, respondents identified an Agricultural Education teacher most frequently for Animal Science (33.3%) and a university professor was identified most frequently in Agricultural Mechanics (50.0%).

Table 7a
Mentors of Beginning Agricultural Education Teachers in Technical Agriculture Content

	Agri-Biology (N=20)		Ag Business and Sales (N=20)		Agricultural Science (N=18)		Agronomy/Plant and Soil Science (N=21)		Agricultural Mechanics (N=24)		Animal Science (N=20)	
Mentor Identified	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
No one	8	40.0	11	55.0	7	38.9	11	52.4	6	25.0	6	28.8
Ag Education Teacher	5	25.5	3	15.0	6	33.3	4	19.0	4	16.7	7	33.3
Teacher Educator	5	25.5	4	20.0	4	22.2	1	4.8	---	---	---	---
Professor in Content Area	1	5.0	1	5.0	---	---	5	23.8	12	50.0	6	28.8
Extension Agent	---	---	---	---	---	---	---	---	---	---	1	4.8
Family Member	---	---	---	---	---	---	---	---	1	4.2	---	---
Teacher in School (bio)	1	5.0	---	---	1	5.6	---	---	1	4.2	---	---
State Staff	---	---	1	5.0	---	---	---	---	---	---	---	---

Table 7b
Mentors of Beginning Agricultural Education Teachers in Technical Agriculture Content

	Aquaculture (N=21)		Environmental Science (N=17)		Equine Management (N=20)		Greenhouse (N=19)		Horticulture (N=17)		Wildlife Management (N=19)	
Mentor Identified	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
No one	11	52.4	10	58.8	9	45.0	5	26.3	8	47.1	11	57.9
Ag Education Teacher	10	47.6	6	35.3	9	45.0	11	57.9	7	41.2	4	21.1
Professor in Content Area	---	---	1	5.9	2	10.0	2	10.5	1	5.9	1	5.3
Extension Agent	---	---	---	---	---	---	1	5.3	1	5.9	1	5.3
Family Member	---	---	---	---	---	---	---	---	---	---	1	5.3
Dept Fisheries & Wildlife	---	---	---	---	---	---	---	---	---	---	1	5.3

No one was identified the most frequently in all areas of classroom instruction (Tables 8a and 8b): implementing technology (43.5%), working with administrators (40.2%), assessing students work (43.5%), working with parents (51.9%), classroom management (41.7%), student motivation (47.6%), dealing with student differences (54.3%), time management (44.0%), and dealing with students' problems (45.0%).

Table 8a
Mentors of Beginning Agricultural Education Teachers in Classroom Instruction

	Implementing Technology (N=23)		Working with Administrators (N=22)		Assessing Student Work (N=23)		Working with Parents (N=27)		Classroom Management (N=24)	
Mentor Identified	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
No one	10	43.5	9	40.2	10	43.5	14	51.9	10	41.7
Ag Ed Teacher	5	21.7	5	21.7	3	13.0	6	22.2	4	16.7
Teacher Educator	5	21.7	1	4.5	5	21.7	3	11.1	6	25.0
Principal	2	8.7	4	18.2	4	17.4	3	11.1	3	12.5
HS Counselor	1	4.3	1	4.5	1	4.3	1	3.7	---	---
Other Teachers	---	---	2	9.1	---	---	---	---	---	---
Expert on Subject	---	---	---	---	---	---	---	---	1	4.2

Table 8b
Mentors of Beginning Agricultural Education Teachers in Classroom Instruction

	Student Motivation (N=21)		Student Differences (N=24)		Time Management (N=25)		Students' Personal Problems (N=20)	
Mentor Identified	*f*	%	*f*	%	*f*	%	*f*	%
No one	10	47.6	13	54.3	11	44.0	9	45.0
Ag Education Teacher	4	19.0	3	12.5	3	12.0	4	20.0
Teacher Educator	4	19.0	5	20.8	5	20.0	2	10.0
Principal	3	14.3	2	8.3	4	16.0	2	10.0
High School Counselor	---	---	---	---	1	4.0	1	5.0
Other Teachers	---	---	1	4.2	---	---	2	10.0
Family	---	---	---	---	1	4.0	---	---

In all four areas of advising a FFA chapter (Table 9), beginning Ag Ed teachers identified an Agricultural Education teacher as a mentor for each: officer elections (56.5%), planning trips and conferences (70.4%), preparing degree applications (69.2%), and planning chapter activities (45.8%).

Table 9
Mentors of Beginning Agricultural Education Teachers in Advising FFA

	Officer Elections (N=23)		Planning Trips and Conferences (N=27)		Preparing Degree Applications (N=26)		Planning Chapter Activities (N=24)	
Mentor Identified	*f*	%	*f*	%	*f*	%	*f*	%
No one	5	21.7	4	14.8	3	11.5	8	33.3
Ag Education Teacher	13	56.5	19	70.4	18	69.2	11	45.8
Teacher Educator	1	4.3	1	3.7	1	3.8	2	8.3
Principal	1	4.3	1	3.7	---	---	1	4.2
State Staff	2	8.7	2	7.4	4	154	2	8.3
Retired Ag Ed Teacher	1	4.3	---	---	---	---	---	---

For the four areas of Supervised Agricultural Experience (SAE) programs (Table 10), respondents identified an Agricultural Education teacher as a mentor most frequently: supervising students' projects (54.2%), developing student opportunities students (45.5%), assisting with livestock shows (34.8%), and assisting with proficiency award applications (60.9%).

Table 10
Mentors of Beginning Agricultural Education Teachers in Supervising SAE Programs

	Supervising Students' Projects (N=24)		Developing SAE Opportunities (N=22)		Livestock Show Procedures (N=23)		Proficiency Award Applications (N=23)	
Mentor Identified	*f*	%	*f*	%	*f*	%	*f*	%
Ag Education Teacher	13	54.2	10	45.5	8	34.8	14	60.9
No one	7	29.3	9	40.1	8	34.8	4	17.4
Retired Ag Ed Teacher	2	8.3	---	---	1	4.3	1	4.3
Teacher Educator	---	---	1	4.5	---	---	1	4.3
Principal	1	4.2	1	4.5	---	---	---	---
State Staff	1	4.2	1	4.5	1	4.3	2	8.7
Extension Agent/4-H Leader	---	---	---	---	3	13.0	---	---
Division of Shows & Fairs	---	---	---	---	1	4.3	---	---
Parents	---	---	---	---	1	4.3	---	---
National FFA Staff	---	---	---	---	---	---	1	4.3

Mentors are identified in areas of Program Management (Table 11). Agricultural Education teachers were identified as the greatest mentor for building a positive image (52.2%), organizing work (50.0%), offering a variety of courses (34.8%) and recruiting/retaining quality students (50.0%). Respondents indicated no one provided assistance was the most frequently for working with colleagues (61.5%) and using advisory committees (47.6%).

Table 11
Mentors of Beginning Agricultural Education Teachers in Program Management

	Building a Positive Image (N=23)		Working with People (N=26)		Organize Work (N=24)		Offering Course Variety (N=23)		Recruit/ Retaining Students (N=24)		Using Advisory Committee (N=21)	
Mentor Identified	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Ag Education Teacher	12	52.2	8	30.8	12	50.0	8	34.8	12	50.0	8	38.1
No one	4	17.4	16	61.5	8	33.3	6	26.1	3	12.5	10	47.6
Another Teacher	---	---	1	3.0	1	4.2	---	---	1	4.2	---	---
Retired Ag Teacher	1	4.3	---	---	1	4.2	---	---	1	4.2	1	4.8
Teacher Educator	4	17.4	1	3.0	---	---	3	13.0	3	12.5	1	4.8
Community	1	4.3	---	---	---	---	1	4.3	---	---	---	---
Principal	---	---	---	---	1	4.2	---	---	---	---	1	4.8
Counselor	---	---	---	---	---	---	1	4.3	3	12.5	---	---
State Staff	1	4.3	---	---	---	---	1	4.3	1	4.2	---	---

Conclusions

Beginning Agricultural Education teachers in this southern state are majority male, beginning their first or second year of teaching, and are graduates from one of the five teacher education institutions in this state offering Agricultural Education. The majority were former FFA members, and possessed leadership experience through serving as a chapter, regional, and/or state officer. Agricultural Education teachers were the largest influence for beginning teachers to pursue a teaching career in Agriculture. Beginning Agricultural Education teachers in this state intend to make a career by planning to teach 25-30 years.

In managing their program, beginning Agricultural Education teachers feel they are most prepared to build a positive image and least prepared in using advisory committees. In the classroom, most beginning Ag Ed teachers are prepared to implement technology and work with administrators. However, they feel least prepared to assist students with their personal problems. In advising an FFA Chapter, beginning Agricultural Education teachers feel prepared to conduct officer elections and least prepared to assist students prepare degree applications. For Supervised Agricultural Experience (SAE) programs, beginning Ag Educators are most prepared in supervising students' projects and least prepared to complete proficiency award applications.

When asked who provided assistance, beginning Agricultural Education teachers say **no one** mentors them in all the all areas of classroom instruction: implementing technology, working with administrators, assessing students work, working with parents, classroom management, student motivation, dealing with students' individual differences, time management, and dealing with students' personal problems.

For program management, **Agricultural Education teachers** mentor beginning Agricultural Education teachers for building a positive image of agricultural education, organizing work, offering a variety of courses, and recruiting and retaining quality students. **No**

one provides beginning Ag Ed teachers assistance when it comes to working with colleagues and using advisory committees.

Agricultural Education teachers mentor beginning teachers in agricultural education in all areas of advising FFA chapters. Areas include officer elections, planning trips and conferences, preparing degree applications, and planning chapter activities.

Agricultural Education teachers are the greatest mentor for supervising students' Supervised Agricultural Experience (SAE) programs. Agricultural Education teachers provided assistance for supervising projects, developing student opportunities, assisting with livestock shows, and completing proficiency award applications.

No one provides assistance to beginning Agricultural Education teachers in most technical agriculture areas. Specifically, class topics such as Agri-biology, Agricultural Business/Sales/Marketing, Introductory Agricultural Science, Agronomy/Plant and Soil Science, Aquaculture, Environmental Science, Horticulture, and Wildlife Management are areas beginning Agricultural Education teachers learned on their own. An **Agricultural Education teacher** was a mentor for the Animal Science, and a university professor in the content area provided assistance in Agricultural Mechanics.

Recommendations

Experienced teachers, state staff, and teacher educators must work together in the pre-service program, student teaching and with beginning teachers to assist these teachers to be successful. Topics such as using advisory committees, dealing with students' personal problems, and completing awards and applications should be addressed.

Experienced Agricultural Education teachers must continue to informally mentor beginning Agricultural Education teachers with the needs they encounter. Furthermore, a formal mentor program in Agricultural Education should be established. Many times no mentor was identified; therefore experienced teachers, teacher educators, state staff, national FFA staff, and school administrators must reach out to assist these teachers. Assistance could be provided through formal mentoring programs or one-on-one interaction. Personal contact via phone calls, email, and in-person conversations would provide assistance in the need areas beginning Agricultural Education teachers encounter.

Future research should encompass a longitudinal study to further explore these teachers' perceived level of preparation and mentors throughout their career. Furthermore, a qualitative study should be conducted to gain richer data to further explore this issue. Through case studies, teacher educators would gain insight to assist other Ag Ed teachers during this important early phase career. In addition, this study should be replicated with other states to gain a broader perspective of beginning Agricultural Education teachers' level of preparation and mentors.

Discussions/Implications

Due to the outcomes of the teacher responses concerning the further need for professional development in certain preparation areas, as well as mentoring, the authors perceive there to be a need to work with state staff members and agriculture teacher's association members in establishing a formal mentorship program within the state. If this problem is not addressed among new teachers to the profession, then the implications will be very easy to identify - teachers continuing to hold a low perceived readiness to teach, and no help on the way.

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