

## PROBLEMS FACING BEGINNING AGRICULTURE TEACHERS

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### Abstract

*One of the most pressing issues facing agricultural education as a profession is the shortage of qualified teachers to fill existing and future secondary agricultural education vacancies. To date, the agricultural education profession has been only moderately effective in recruiting and retaining teachers (Camp, Broyles, & Skelton, 2002). The purpose of this study was to develop a consensus listing of the major problems facing beginning agricultural education teachers. By gaining a better understanding of the major problems beginning agricultural education teachers face, pre-service teacher education programs can better prepare potential teachers to deal with these obstacles. Likewise, professional development programs for current teachers could be established and/or modified to address these problems. This study utilized the Delphi method to develop this listing of major problems. An expert panel of teachers with three or fewer years of experience was established. This panel identified 11 major issues facing beginning agriculture teachers. The top five, as rated by the panel members, were: organizing an effective alumni chapter, organizing an effective advisory committee, organizing and planning FFA chapter events and activities, the management of student discipline in the classroom, and recruiting and retaining alumni members.*

### Introduction

One of the most pressing issues facing agricultural education as a profession is the shortage of qualified teachers to fill existing and future secondary agricultural education programs (Camp et al., 2002; Connors, 1998). According to Camp et al., this shortage is perpetuated by at least two major factors. First, agricultural teacher education programs at colleges and universities are not graduating an adequate number of individuals to fill all available positions. Secondly, a large number of agriculture teachers leave the profession early in their careers. In many cases teachers who leave the profession early feel that they are ineffective due to being overwhelmed (Bennett, Iverson, Rohs, Langone, & Edwards, 2002).

A number of studies have been conducted to identify the professional development (in-service) needs of secondary agricultural education teachers. A common

theme emerging from this body of work is the need for assistance for beginning teachers in the areas of classroom and behavior management (Joerger, 2002; Joerger & Boettcher, 2000; Mundt, 1991; Mundt & Connors, 1999; Shippy, 1981; Talbert, Camp, & Heath-Camp, 1994; Veenman, 1984). Other researchers have also identified assistance in motivating students as an area of need with beginning agriculture teachers (Garton & Chung, 1996, 1997; Joerger; Mundt & Connors; Veenman). The literature base also identifies other professional development needs, such as working with agricultural education support groups (Edwards & Briers, 1999; Garton & Chung, 1996; Joerger; Mundt & Connors), preparing FFA applications, and preparing for FFA events (Birkenholz & Harbstreet, 1987; Edwards & Briers; Garton & Chung, 1996, 1997; Joerger). In contrast, several researchers reported that beginning teachers feel more comfortable and competent in working with

the FFA component of agricultural education than with the other aspects of the program (Birkenholz & Harbstreit; Garton & Chung, 1996, 1997; Joerger).

Joerger (2002) and Birkenholz and Harbstreit (1987) reported a lack of consensus among beginning agriculture teachers concerning their professional development needs. They reported that this lack of agreement is likely precipitated by the wide variety of situations in which the beginning teacher finds himself or herself.

Joerger (2002) recommended that an assessment of the needs of beginning agricultural education teachers be conducted on a regular basis. He further recommended that the information gathered from this routine assessment be used to design professional development programs for beginning teachers of agriculture.

The theoretical framework for this study lies in Herzberg's Motivation-Hygiene Theory (McClelland, 2004). Herzberg conceptualized two components of motivation: the job environment (hygiene), and what people actually do on the job (motivators). Hygiene factors include such components as the place of employment, its policies and administration, supervision received while on the job, working conditions, interpersonal relations, salary, status, and security. Motivators include achievement, recognition, growth/advancement, and interest in the job. According to Herzberg, both hygiene and motivation must occur simultaneously. However, if beginning teachers are not adequately prepared for teaching, both the hygiene and motivator factors may prove to facilitate negative experiences in the classroom. This study seeks to determine how well beginning teachers have been prepared to deal with (or without) hygiene and motivation factors as identified by Herzberg. As applied to this study, if beginning teachers encounter problems due to a lack of preparation, they may be less likely to engage with their work environment, grow professionally, or to continue their interest in their jobs. If so, it is also likely they will leave the teaching profession and seek alternative types of employment (Berns, 1990).

An understanding of problems facing beginning teachers is a critical first step in improving the retention rate of new teachers. Heath-Camp and Camp (1990) reported that 15% of new vocational teachers leave the profession after the first year, and that almost 50% leave within six years. Other researchers (Garton & Chung, 1996; Mundt & Connors, 1999) have shown that by understanding the problems facing beginning teachers, university faculty and state agricultural education staff can modify pre-service programs and develop professional development programs to address these issues.

### **Purpose and Objective**

The purpose of this study was to develop a consensus listing of the major problems facing beginning agricultural education teachers. Knowledge of these problems allows for a systematic approach to solving the problems that plague many new teachers. The main objective of this study was to identify the major problems that agriculture teachers experience as they begin their careers. An expert panel of 41 beginning agriculture teachers from Florida was used to complete the objective of the study. Prior to this research, no study had been undertaken to identify the problems that this population faces.

### **Methods/Procedures**

This statewide study used the Delphi technique to identify problems that Florida agriculture teachers experience in their beginning years of teaching. For this study a beginning teacher was defined as a teacher who had completed no more than three years of teaching. By using this group of teachers, it is likely that problems identified by this study are truly only those experienced by a teacher in his or her first three years of teaching.

Delp, Thesen, Motiwalla and Seshadri (1977) described the Delphi technique as a group process used to solicit, collate, and direct expert responses toward reaching consensus. Helmer (1966) described the Delphi technique as a method of substituting computed

consensus for an agreed-upon majority opinion.

The purposive sample for this study consisted of 41 beginning middle and/or high school agriculture teachers. Stufflebeam, McCormick, Binkerhoff, and Nelson (1985) noted the Delphi technique is especially effective in obtaining consensus among a purposively selected group of experts. In this instance, the individuals who had the needed information (e.g., the "experts") were considered to be the beginning teachers themselves, since they were intimately involved in identifying and solving these types of problems on an ongoing basis. An assumption was made that beginning teachers may be too busy (or overwhelmed) to reply to a research project with multiple phases; therefore, a group size of 41 beginning agriculture teachers was used to ensure a response rate that produced reliable results. Dalkey (1969) reported reliability greater than .80 when the Delphi group size was larger than 13 respondents.

The study consisted of a series of three mailed questionnaires. Moore (1987) noted that a series of mailed questionnaires was the typical method employed by the Delphi technique to solicit consensus. The first round of the study used a questionnaire with one open-ended question, "What are the major problems faced by beginning teachers of agriculture?" An open-ended question was used to facilitate the generation of a wide array of response categories.

After initial responses were received, all were summarized and categorized by the researchers to produce items for a second round questionnaire. Questionnaires were validated using a panel of 10 university teacher educators and agriculture teachers not included in the study.

In the second round of the study, Delphi members were asked to evaluate the statements and rate their level of agreement with the items identified in Round One. Panel members rated the items on a five-point Likert-type scale (1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, 5 = Strongly Agree). From second-round responses the list of categories was reduced from 50 to 17.

The third questionnaire sought to determine consensus. Panel members were asked to indicate whether they agreed or disagreed with each of the 17 statements, and to provide comments if they could not agree with the summary findings. Consensus was reached on 11 of the 17 items in this round. As noted by McCampbell and Stewart (1992), most Delphi studies reach consensus in the third round.

### **Analysis of Data**

Data were analyzed using descriptive statistics. Data collected using Likert-type scales were treated as interval data and reported as means and standard deviations for classification purposes. Nominal data were reported using frequencies and percentages.

### **Results**

Twenty-one respondents replied to the single question used in the first round, meeting Dalkey's (1969) requirement of a minimum of 13 usable responses. Fifty items were identified as being problematic by respondents in Round One. Those listed multiple times are presented in Table 1. None of the items were identified by all respondents as a problem they faced as a beginning teacher.

The most commonly identified problems dealt with classroom and behavior management of students. Thirteen of the 21 respondents identified this as a major problem faced by beginning teachers. Twelve of the 21 respondents listed advising the local FFA chapter as a major problem that beginning teachers face, whereas, curriculum development and lesson planning was listed by 11 respondents. Other major problems identified by multiple beginning teachers include: managing paperwork and finances, working with parents, teachers, and administrators, time and stress management, lack of resources and management of resources, recruitment of students and alumni, and working with special needs students.

Table 1  
*Round One: Major Problems Faced by Beginning Agriculture Teachers (n = 21)*

Problem	Responses <sup>a</sup>
Behavior/Classroom management	13
Advising the FFA chapter	12
Curriculum development & lesson planning	11
Managing paperwork and finances	9
Working with parents, teachers, and administrators	8
Time / stress management	6
Lack of resources / management of resources	5
Recruitment of students and alumni	5
Working with special needs students	3

<sup>a</sup>Includes multiple responses. Problems identified by only one respondent are not included in this listing, but were included in Round Two.

In Round Two of this study, respondents were asked to rate their level of agreement with the 50 items identified in Round One. A Likert-type rating scale was used for the second round. In addition, respondents were given the flexibility of making comments on statements found on the questionnaire, and/or including additional statements.

As in the first round, 21 beginning teachers completed and returned the Round Two questionnaire (Table 2). It was determined a priori that all items with means equal to or greater than 3.50 indicated that beginning teachers agreed with the statements and that it would be retained for Round Three. Seventeen items from the questionnaire were retained for the third round.

The highest level of agreement in this round was reached on “lack of preparation time at beginning of school year” ( $M = 4.10$ ). The next highest rated items were the statements, “being technically competent in all areas of agriculture” ( $M = 4.05$ ) and “management of student discipline in the classroom” ( $M = 4.05$ ).

Interestingly, “management of student discipline in the classroom” was rated near the top of the list of problems in this round, whereas a related item, “development of classroom rules,” was rated near the bottom ( $M = 2.67$ ), and “developing classroom procedures” was rated near the middle ( $M = 3.05$ ) of the list of problems. Furthermore, beginning teachers disagreed that developing working relationships with state agricultural education staff, school administrators, school guidance counselors, other teachers in their schools, and other agriculture teachers were problems faced by beginning teachers. These statements had means ranging from 2.57 to 2.86.

As indicated by the high standard deviations, much variability existed in levels of agreement. Round Two standard deviations ranged from a low of .77 for “supervising students in laboratory activities” ( $M = 3.24$ ) to a high of 1.39 for “dealing with the reputation (positive or negative) of the previous agriculture teacher” ( $M = 3.60$ ), indicating that some items are problems in many programs, whereas others are program-specific.

Table 2  
*Round Two: Level of Agreement with Problems Facing Beginning Agriculture Teachers (n = 21)*

Problem	<i>M</i>	<i>SD</i>
Lack of preparation time at beginning of school year	4.10	1.09
Being technically competent in all areas of agriculture	4.05	1.16
Management of student discipline in the classroom	4.05	.80
Balancing work and personal life	3.95	1.32
Making ESE/Special education accommodations	3.90	1.04
Organizing an effective alumni chapter	3.76	.89
Lack of structured curriculum for specific courses	3.76	.83
Time management	3.76	.94
Managing stress	3.76	1.14
Organizing and planning FFA chapter events and activities	3.75	1.07
Recruiting and retaining alumni members	3.70	.98
Dealing with the reputation (positive or negative) of the previous agriculture teacher	3.60	1.39
Organizing an effective advisory committee	3.57	1.03
Completing school paperwork	3.57	1.08
Completing teacher certification	3.52	1.25
Developing a well rounded program	3.52	.98
Completing FFA paperwork	3.48	1.08
Organizing and managing the facility	3.43	.98
Recruiting business partners	3.43	.98
Working with parents of students	3.40	.94
Preparation of FFA Career Development Event teams	3.38	.97
Adjusting to individual student needs (i.e., learning styles, special education needs)	3.38	.86
Acquiring current educational resources	3.33	1.06
Keeping agricultural department and/or FFA financial records	3.33	1.02
Developing a department and/or FFA budget	3.33	.86
Learning to prioritize	3.29	1.01
Developing lesson plans	3.29	1.06
Supervising students in laboratory activities (i.e., greenhouse, land labs, agriscience laboratory, etc.)	3.24	.77

Problem	<i>M</i>	<i>SD</i>
Recruiting students into the agricultural education program	3.24	.94
Developing relevant Supervised Agricultural Experience (SAE) programs for students	3.22	1.00
Managing relevant Supervised Agricultural Experience (SAE) programs for students	3.19	1.03
Lack of knowledge on liability	3.19	1.21
Organizing and completing effective FFA fundraising activities	3.19	1.03
Dealing with students taking agriculture courses only for science credit	3.05	1.32
Recruiting non-traditional students into the program	3.05	1.12
Developing classroom procedures	3.05	.97
Allowing time for professional development activities	2.95	1.12
Planning daily activities	2.95	.97
Developing a working relationship with university faculty	2.95	1.20
Keeping up with technology	2.90	1.22
Integrating science into the agriculture curriculum	2.90	1.17
Developing a working relationship with state agricultural education staff	2.86	1.20
Developing a working relationship with school administrators	2.86	1.24
Identifying the focus of the FFA chapter	2.86	.91
Developing a working relationship with school guidance counselors	2.76	1.30
Developing a working relationship with other teachers in the school system	2.70	1.17
Developing classroom rules	2.67	.91
Developing a working relationship with other agriculture teachers	2.57	1.36
Selection of FFA chapter officers	2.55	1.05
Understanding state standards	2.33	.86

In Round Three participants were asked to provide a dichotomous indication of whether they agreed or disagreed that each of the items listed were problems facing beginning agriculture teachers. As in other rounds, panel members were asked to provide comments if the item could be further explained to reach consensus. Twenty-seven of the panel members

responded in this round.

Panel members agreed that 11 items constitute the major problems that face beginning agriculture teachers (Table 3). The level of consensus was established a priori at 66%. It was determined that if two-thirds of beginning teachers believed an item was a major problem, that issue should be addressed.

Table 3  
*Round Three: Level of Agreement with Problems Facing Beginning Agriculture Teachers (n=27)*

Problem	Agree %
Organizing an effective alumni chapter	85.2
Organizing an effective advisory committee	81.5
Organizing and planning FFA chapter events and activities	81.5
Management of student discipline in the classroom	81.5
Recruiting and retaining alumni members	81.5
Making ESE/Special education accommodations	77.8
Managing stress	74.1
Balancing work and personal life	70.4
Lack of preparation time at beginning of school year	70.4
Time management	70.4
Developing a well rounded program	66.7

The highest level of agreement was reached on organizing an effective alumni chapter (85.2%). Over 81% of the panel members agreed that four additional issues were major problems facing beginning teachers. These four issues were: organizing an effective advisory committee, organizing and planning FFA chapter events and activities, the management of student discipline in the classroom, and recruiting and retraining alumni members. Additional problem areas are found in Table 3.

### **Conclusions/Implications/ Recommendations**

This study identified 11 major problems faced by beginning agriculture teachers. The top five problems, as rated by the beginning teachers, were “organizing an effective alumni chapter,” “organizing an effective advisory committee,” “organizing and planning FFA chapter events and activities,” “management of student discipline in the classroom,” and “recruiting and retaining alumni members.” Each of these issues was reported in previous studies by Birkenholz and Harbstreet (1987), Edwards and Briers (1999), Garton and

Chung (1996, 1997), Joerger (2002), Joerger and Boettcher (2000), Mundt (1991), Mundt and Connors (1999), Shippy (1981), and Talbert et al. (1994).

Major problems facing beginning teachers appear to vary greatly from teacher to teacher. This discrepancy is most likely due to the differences in individual programs in which beginning teachers are employed. This finding concurs with that of Birkenholz and Harbstreet (1987) and Joerger (2002).

Not all of the problems identified in this study had been identified in previous research as problems of beginning teachers. Previous research reported the most pressing problems are those dealing with instructional issues, including classroom management, curriculum development, and lesson planning (Birkenholz & Harbstreet, 1987; Edwards & Briers, 1999; Garton & Chung, 1996, 1997; Mundt, 1991; Mundt & Connors, 1999; Shippy, 1981; Talbert et al., 1994; Veenman, 1984). A new finding of this study is that a major problem for beginning teachers was the establishment and management of support groups. As found in this study, three of the top five major problems facing beginning agriculture teachers deal with support group issues.

These are groups that, by their own definitions, are designed to assist teachers. This finding has implications for pre-service agriculture teacher education and professional development programs. Beginning teachers may believe that the establishment of an advisory council or alumni group is important, yet may not feel as though they have the ability to organize and lead the groups. It is recommended that pre-service agriculture teacher education programs that serve this clientele expand curricula to prepare beginning teachers in organizing and managing support groups. Also, professional development programs that focus on assisting beginning teachers in establishing and managing support groups should be organized.

Those responsible for the preparation and retention of teachers need to gain a better understanding of how to best address the major problems facing beginning agriculture teachers. By doing so, improvements can be made in pre-service teacher education and in-service professional development programs. Programs to address these issues could be jointly coordinated by university teacher education faculty, state agricultural education staff, and professional teacher organizations.

It goes beyond the scope of this study to assume a relationship between problems of beginning teachers and teacher recruitment and/or retention. However, further research is warranted to determine if this relationship exists.

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