

## CONCERNS EXPRESSED BY STUDENT TEACHERS IN AGRICULTURE

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### Abstract

*The purpose of this study was to explore concerns (teaching and non-teaching) expressed by agricultural education student teachers. Agricultural education student teachers at Iowa State University communicated with fellow student teachers and university supervisors about non-teaching and teaching concerns, gave advice, responded to questions, and shared lesson plans or ideas using an Internet-based communication tool. Student teachers were most concerned with self-adequacy. Self-adequacy concerns related to subject matter knowledge, discipline, and administrative rules. Moreover, the type of teaching concerns expressed by student teachers majoring in agricultural education was not dependent upon gender. Results also indicated that student teachers may have valued the Internet as a communication tool for a range of purposes. Overall, student teachers in this agricultural education program were not developmentally different from other student teachers from various academic disciplines.*

### Introduction/Theoretical Framework

Throughout their teaching career, teachers often experience frustrations and concerns related to teaching. However, these concerns and frustrations may be more intense during the student teaching and first year experiences.

Several studies have been conducted in agricultural education on teacher concerns, particularly those of beginning teachers. A study conducted by Johnson, Lindhardt, and Stewart (1989) concluded that first and second year agricultural education teachers experience challenges with classroom instruction, SAE, and FFA activities. Talbert, Camp, and Heath-Camp (1994) concluded that beginning teachers faced challenges with classroom management, student discipline and safety, requirements of FFA events, and teacher isolation. Mundt and Connors (1999) concluded that the main challenges faced by beginning teachers were classroom management and student discipline. Additional challenges that emerged from their study were time and organizational management, managing activities of the local FFA chapter, building support for the program, and motivating

students. Mundt (1991) found that being faced with teaching challenges could lead to a lack of self-confidence, confusion, frustration, and isolation.

Outside of agricultural education, other studies involving teacher concerns have been conducted. One of the most prolific researchers of teacher concerns, Frances Fuller, began her research in the 1960s. Most of Fuller's research focused on the stages of concern of preservice, student, and beginning teachers. In 1972, Fuller and Case identified seven categories of teacher concerns: 1) non-teaching concerns, 2) role as a teacher, 3) subject matter and discipline adequacy, 4) personal/social/emotional relationships with pupils, 5) teaching methods and evaluating pupil learning, 6) pupil learning of the material, and 7) improving oneself as a teacher. Fuller, Parsons, and Watkins (1974) grouped specific categories of teaching concerns into three stages: self-adequacy, teaching tasks, and teaching impact. In addition, Fuller et al. (1974) examined gender as it relates to the areas of teaching concerns expressed by teachers. She sought to determine whether males and females differed on various teaching concerns expressed by student

teachers and found that they did not. Later, researchers Adams and Martray (1981) verified Fuller's stages of concerns and gender relationships.

Self-adequacy concerns, described primarily as survival concerns, are often experienced by preservice and beginning teachers, and include supervisor's approval, administrative support, relationships with other teachers, subject matter adequacy, and discipline problems. These concerns have an influence on teachers' ability to teach and their effectiveness in the classroom (Adams & Martray, 1981; Fuller et al., 1974).

During the teaching task stage, teachers are more concerned about effective teaching materials/methods and their specific workload. Teachers no longer worry about their survival in the classroom; however, they worry about pupils' feelings toward them and about evaluating pupil learning (Adams & Martray, 1981; Fuller et al., 1974).

Teaching impact concerns are focused on the student as a whole. Teachers at this level feel confident about their teaching abilities, the classroom environment, and relationships with faculty and students. Teachers now are more focused on student needs and educational improvement (Adams & Martray, 1981; Fuller et al., 1974). Furthermore, teachers are concerned with personal/professional development and ethical issues within the educational system that could affect the student body.

Teachers at all levels experience concerns but student teachers are concerned about several facets of the teaching experience: being observed by university supervisors, maintaining good discipline, their teaching workload, contextual problems (where things are located, getting to know other teachers, moving to a new environment, etc.), examining their career choice, and their overall perceptions of teaching (Kyriacou & Stephens, 1999). Student teachers often need to discuss these concerns or other problems. In a recent study of off-campus students (Chadwick, 1999), communicating through the use of technology tools was rewarding, effective, and satisfying to students. Communicating through an Internet-based communication tool might also provide timely feedback to

the student teacher. However, given the opportunity to communicate this way, what will student teachers communicate about? In addition, will the concerns expressed by agricultural education student teachers be consistent with the findings of other academic discipline studies on student teacher concerns? Moreover, will student teacher concerns be consistent with agricultural education beginning teacher concerns? Also, will communication activity increase over time using an Internet-based communication tool?

### Purpose and Objectives

The purpose of this study was to explore concerns (teaching and non-teaching) expressed by agricultural education student teachers. The objectives of the study were to:

1. Identify concerns (non-teaching and teaching) communicated by agricultural education student teachers.
2. Determine if the proportion of teaching concerns in each category differed by gender.
3. Account for other communication activity that supplemented the student teaching experience in agricultural education.
4. Determine if communication activity increased from 2000 to 2001.

### Methods and Procedures

This study was descriptive in nature. The population consisted of ( $N = 41$ ) student teachers who were completing their agricultural education student teaching experience at Iowa State University during the spring semesters of 2000 and 2001. There were 10 females and 10 males who completed their student teaching experience during the spring semester of 2000, and eight females and 13 males who completed their student teaching experience during the spring semester of 2001.

Student teachers used WebCT (Web Course Tools) to communicate with university supervisors and fellow student teachers while student teaching. WebCT is

“an educational tool for facilitating learning, communicating and collaborating through the use of the Internet and computers” (Peters, 2000, p. 2). During the spring semesters of 2000 and 2001, student teachers were instructed to make at least three postings on the WebCT about professional concerns or ideas that were related to teaching.

The data from the WebCT postings were collected at the end of the spring 2000 and spring 2001 semesters. The data were coded using the Fuller and Case (1972) manual for scoring teaching concern statements. The manual consisted of six categories of concern about teaching (Code 1, 2, 3, 4, 5, & 6) and one category (Code 0) considered non-teaching concerns. Code 1 contained statements about one’s role as a teacher; Code 2 contained statements about one’s adequacy as a person and as a teacher; Code 3 contained statements about a student teacher’s personal, social, and emotional relationships with pupils; Code 4 contained statements about whether pupils were learning what the teacher was teaching; Code 5 contained statements about whether pupils were learning what they need as persons; and Code 6 contained statements about personal and professional development, ethics, educational issues, and anything else that could have influenced pupils. Fuller et al. (1974) and Adams and Martray (1981) collapsed the six codes into three categories: teacher’s concern about self as a teacher (Codes 1 and 2), teacher’s concern about the tasks in teaching (Codes 3 and 4), and teacher’s concern with the impact of teaching on pupils (Codes 5 and 6).

To account for other communication activity that had taken place, the researchers added two other codes, 7 and 8. Code 7 represented any student teacher responding to a question or giving advice, and Code 8 represented a student teacher sharing lesson plans or lesson ideas.

To ensure that the data collector coded postings in a manner that was consistent with Fuller’s theory, the Fuller and Case

(1972) teacher concern manual was studied and regularly consulted during the coding process. Intrarater reliability was established at .95 by coding the postings twice at 2 week intervals.

Fuller et al. (1974) established content validity of the teaching concern codes by conducting interviews and group counseling sessions with teachers. Based on these interviews and sessions, Fuller et al. (1974) developed the topics and groupings of different categories of the concern codes and substantiated the interviews and sessions with many sources (Combs, 1965; Erickson, 1956; Gabriel, 1957; Jackson, 1968; Maslow, 1954).

All data were analyzed using SPSS. The statistics deemed appropriate for the study included frequencies, percentages, and correlations. Davis’ (1971) descriptors were used to interpret the magnitude of all associations.

## Results/Findings

### *Objective 1*

#### *Identify concerns (non-teaching and teaching) communicated by agricultural education student teachers*

Table 1 presents the overall frequency of postings related to teaching concerns and non-teaching concerns by gender. Teaching concerns are specifically related to teaching and student achievement. Some examples of teaching concerns are: being supervised by the cooperating teacher or university supervisor, discipline problems, subject matter knowledge, and the learning process of students. A majority (62.7%) of the teaching concerns posted on WebCT were written by females. Non-teaching concerns included such topics as seeking employment, interviewing, and several other professional issues related to the teaching environment. Non-teaching concerns were widely expressed by both males and females but a majority (55.9%) of the non-teaching concerns posted on WebCT were written by males.

Table 1  
*Frequency of Non-teaching and Teaching Concerns by Gender (2000 and 2001 Combined)*

Concerns	Female (N = 17)			Male (N = 17)			Total (N = 34)		
	<i>f<sup>a</sup></i>	%	<i>n<sup>b</sup></i>	<i>f<sup>a</sup></i>	%	<i>n<sup>b</sup></i>	<i>f<sup>a</sup></i>	%	<i>n<sup>b</sup></i>
Non-teaching	30	44.1	14	38	55.9	15	68	100.0	29
Teaching	37	62.7	27	22	37.3	20	59	100.0	47

<sup>a</sup>Total number of postings. <sup>b</sup>Total number of student teachers who made postings.

*Objective 2*  
*Determine if the proportion of teaching concerns in each category differed by gender*

Table 2 presents teaching concern categories by gender. The majority of the postings made by females and males were self-adequacy concerns. Based on the

number of postings by gender, the proportion of teaching tasks was slightly higher for males while the proportion of impact concerns was slightly higher for females. Even so, the magnitude of the association between gender and teaching concerns was negligible.

Table 2  
*Teaching Concern Categories by Gender (2000 and 2001 Combined).*

Category of Concern	Female (N = 17)			Male (N = 17)		
	<i>f<sup>a</sup></i>	%	<i>n<sup>b</sup></i>	<i>f<sup>a</sup></i>	%	<i>n<sup>b</sup></i>
Self-Adequacy	21	56.8	11	13	59.1	11
Teaching Tasks	7	18.9	7	5	22.7	5
Teaching Impact	9	24.3	9	4	18.2	4
Total	37	100.0	27	22	100.0	20

Note. Cramer's *V* was used to quantify the association between gender and teaching concerns.

Cramer's *V* = .07.

<sup>a</sup>Total number of postings. <sup>b</sup>Total number of student teachers who made postings.

*Objective 3*  
*Account for other communication activity that supplemented the student teaching experience in agricultural education*

Table 3 presents other communication that took place during the student teaching experience. The communication consisted of responding to concerns or giving advice

and sharing lesson plans or ideas. There were a total of 95 other communication postings. Approximately 62% of those postings by student teachers were giving advice or responding to concerns, whereas 38% of the student teachers' postings focused on sharing lesson plans or ideas.

Table 3  
Other Communication Activity on WebCT

Communication	$f^a$	%	$n^b$
Responding/Giving Advice	59	62.1	29
Sharing Lesson Plans or Ideas	36	37.9	15
Total	95	100.0	

<sup>a</sup> Total number of postings. <sup>b</sup> Number of student teachers who made postings.

*Objective 4*  
*Determine if communication activity*  
*increased from 2000 to 2001*

Table 4 exhibits all student teacher postings on the discussion board that took place via WebCT during the spring 2000 and the spring 2001 student teaching experience. The communication consisted of non-teaching concerns, teaching concerns, and other communication

(responding to concerns or giving advice and sharing lesson plans or ideas). The total number of postings during the spring of 2000 was 90 and increased to 132 during the spring of 2001. In addition, the number of postings per person increased from approximately five during the spring of 2000 to approximately seven during the spring of 2001.

Table 4  
Communication Activity on WebCT During 2000 and 2001

Year	$N$	Number of Postings	Postings/Person
2000	19	90	4.74
2001	19	132	6.95

**Conclusions/Implications/  
Recommendations**

Kruse (1997) suggested that reflection might be most powerful when teachers have the opportunity to express congruent problems of classroom and school-wide concerns. One way for student teachers to reflect on their daily concerns and receive feedback is to communicate with other student teachers and supervisors. Student

teachers did reflect and communicate about their concerns using an Internet-based communication tool, WebCT. Based on concerns and other topics discussed amongst agricultural education student teachers, three conclusions can be drawn.

First, student teachers, during the spring of 2000 and 2001, were more focused on dealing with self-adequacy concerns (subject matter material and discipline problems) than any other concern area. Studies

conducted by Adams and Martray (1981) and Fuller et al. (1974) discovered student teachers of various academic disciplines (elementary through secondary) also focused on self-adequacy concerns instead of teaching task or impact concerns. Also consistent with previous studies (Adams & Martray, 1981; Fuller et al., 1974) on student teaching concerns, student teaching concerns in this agricultural education program were not gender specific. In addition, this study was consistent with agricultural education studies (Johnson et al., 1989; Mundt & Connors, 1999; Talbert et al., 1994) conducted on beginning teacher concerns. These student teachers were concerned about classroom instruction and management, student discipline, and time management. It was concluded that student teachers in this agricultural education program were not developmentally different from other student teachers from various academic disciplines.

Second, in addition to communicating about teaching concerns, student teachers communicated about other areas of their professional responsibilities. They gave advice or responded to questions, as well as sharing lesson plans or ideas.

Third, communication activity on the discussion board via WebCT increased from the spring of 2000 to the spring of 2001. This increase may be due to greater acceptance of the Internet as a communication tool. Moreover, student teachers may have valued the Internet as a tool for communication for a range of purposes.

Mundt (1991) recommended that teacher educators in agriculture help prospective teachers recognize and deal with problems they will face. This study has shown that an Internet communication tool can provide a forum to discuss teaching concerns prior to the first year of teaching. Knowing that student teachers are experiencing several of the same concerns as beginning teachers, a similar forum could be used by beginning teachers.

Furthermore, these questions related to teaching concerns emerged from this study and could lead to further research.

1. Does addressing concerns during student teaching help teachers when

they enter their first year of teaching?

2. Do student teachers continue to address teaching concerns with fellow colleagues or supervisors during their first and second years of teaching? If so, by what means do they communicate?

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