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ABSTRACT

A study examined the relationship of attitudes of vocational student teachers to their plans to teach. Also investigated during the study was an alternative method of scoring the Purdue Student-Teacher Opinionnaire. (The Purdue Student-Teacher Opinionnaire is a 60-item questionnaire that yields factor scores pertaining to the following areas: rapport with supervising teacher, principal, and university supervisor; teaching as a profession; school facilities; professional preparation; rapport with students and other teachers; and student-teacher load.) After administering the opinionnaire to 95 student teachers who were enrolled in the Department of Agricultural Education from the fall of 1980 through the spring of 1982, researchers analyzed the relationship of the nine factors to the student teachers' plans to teach. Six of the nine factors showed statistically significant correlations with plans to teach. Of these, teaching as a profession and rapport with students exhibited the highest correlation with plans to become a vocational agricultural teacher. Recommendations called for increased efforts to improve the image of teaching as a profession, and for more careful selection of student teaching centers. In addition, the researchers concluded that the certainty method that they used to score the opinionnaire produced sufficiently reliable results to warrant its use. (MN)

RELATIONSHIP OF ATTITUDES OF VOCATIONAL STUDENT TEACHERS TO THEIR PLANS TO TEACH

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INTRODUCTION

The student teaching component of vocational teacher education programs has been and remains an important part of the curriculum for preparing future vocational teachers. Student teaching is important because it provides an opportunity for the future vocational teacher to gain practical experience in the classroom. Furthermore, in some cases it may be the most significant factor in determining whether or not a potential teacher decides to enter the profession of teaching.

In recent years, the program area of vocational agriculture has been plagued by a shortage of qualified vocational agriculture teachers.

> "On September 1, 1981, almost 100 more teachers were needed to fill secondary vocational agriculture vacancies. Of all the teachers employed more than 300 had temporary certificates. Almost 40 vocational agriculture departments were destined to close because of a lack of teachers" (Craig, 1982 p. 4).

The problem, however, is not simply a lack of qualified vocational teacher candidates; it is compounded by the low percentage of potential teachers who enter the profession. According to Craig (1982), only 52.5% of the qualified, certified graduates of agricultural teacher education programs took teaching positions in 1981.

If teacher educators are to meet the challenge of providing qualified vocational teachers for the nation's schools, they must examine carefully questions such as: Why do students choose occupations other than teaching? What factors influence their perception and decisions about a career in teaching? More specifically, if student teaching is to contribute positively toward the professional preparation and aspirations of future vocational teachers, the factors associated with this experience need to be studied. This research examines part of the affective domain of student teachers; the relationship of attitudes of vocational student teachers to their plans to teach is investigated.

OBJECTIVES OF THE STUDY

The primary purposes of the study were to evaluate the attitudes of agricultural education students at Texas A&M University toward their student teaching experience and to determine relationships between these attitudes and plans to teach. A secondary purpose of the study was to examine an alternative method of scoring the Purdue Student-Teacher Opinionaire (Bentley and Price, 1976). The study was designed to answer the following questions:

1. What factors associated with student teaching are perceived most positively by student teachers?
2. Are there differences in the attitudes toward student teaching of fall semester student teachers as compared with spring semester student teachers?
3. Are there relationships between attitudes toward student teaching and plans to become a vocational teacher?

PROCEDURES

The accessible population for this study included all of the student teachers in the Department of Agricultural Education from the Fall semester of 1980 through the Spring semester of 1982. The Purdue Student-Teacher Opinionaire was administered at the end of the student teaching experience when the students had returned to campus for a two day "debriefing" session. A total of 95 student teachers completed the opinionaire: 50 Fall student student teachers and 45 Spring student teachers.

The Purdue Student-Teacher Opinionaire employs a four-point scale--agree, probably agree, probably disagree, and disagree. Since all 60 items on the scale are positive ("agree" is a "good" response), the scoring system assigns values of 4, 3, 2, and 1, respectively, to the four response categories. Warren, Klonglan, and Sabri (1969) discuss the problems of an interval scale with few possible values and the assumption of equal intervals between values. Instead, they recommend the "certainty method" for developing empirical measures in the social sciences. So, a secondary purpose of this study was to examine the certainty method for responding to and scoring the PS-TO.

Students responded to the 60 items on the PS-TO and an additional question indicating plans to teach vocational agriculture. A scale of "1" (strongly disagree) to "11" (strongly agree) was used for all 61 questions and the values were then transformed to a "0 to 16" certainty scale as follows:

Response values	1	2	3	4	5	6	7	8	9	10	11
Transformed values	0	3	5	6	7	8	9	10	11	13	16

This method of scoring "spreads out" the ends of the original scale. It assumes that there is a greater difference between a respondent who rates an item "1" and a respondent who rates an item "2" than there is between two respondents, one who rated an item "5" and the other who assigned an item "6".

Factor scores were produced by summing the transformed values for each student teacher's responses to the PS-TO items comprising that factor. To achieve "uniform" scores, each factor score is expressed as a percentage of the highest possible score for that factor. (Example: Professional Preparation consists of 6 items. So, the highest possible score would be 96 (6 items times 16 = 96). Dividing by .96 gives a 100 percent score. Cronbach's coefficient alpha correlation was computed to estimate the reliability (internal consistency) of each factor.

Descriptive statistics (means and standard deviation) were calculated for each of the nine PS-TO factors. One way analysis of variance was used to compare the attitudes of fall student teachers with spring student teachers. Finally, correlation coefficients were calculated to assess the relationships between attitudes toward student teaching and plans to teach vocational agriculture.

RESULTS

The Purdue Student-Teacher Opinionaire yields nine factor scores:

1. Rapport with supervising teacher
2. Rapport with principal
3. Rapport with university supervisor
4. Teaching as a profession
5. School facilities
6. Professional preparation
7. Rapport with students
8. Rapport with other teachers
9. Student teacher load

The data from the PS-TO were analyzed first to determine the reliability of each of the nine factor scores. Reliability estimates were compared with estimates reported by Bentley and Price (1972) and with estimates reported by Briers and Byler (1978), as shown in Table 1. Reliability estimates from this study were higher than those reported by Bentley and Price or Briers for five of the nine factors. Only the factor professional preparation showed a marked decrease in reliability when compared to the two previous studies. According to Briers and Byler (1978) further examination of the certainty method for scoring the PS-TO was needed. Concern was expressed over possible differences in variability due to sample size [N = 179 for Bentley and Price (1972) and N = 45 for Briers and Byler (1979)], and the resultant effect on reliabilty. The sample size of this study (N = 95) fell roughly half way between the sample sizes of the two previous studies, and reliability estimates on the average were higher. Examination of the reliability estimates from the three studies indicates that the certainty method for scoring the PS-TO is a reliable procedure, perhaps even more reliable than the method for responding to scoring the opinionaire as prescribed by Bentley and Price (1972).

In Table 2 are shown the mean responses for the nine factor scores from the PS-TO. The overall mean scores are listed in column 1, and the factors appear in rank order according to highest mean rating. Overall, student teachers rated "rapport with university supervisor" most positively followed closely by "rapport with students". Data in column 2 are the mean scores for Fall semester student teachers only, and column 3 pertains only to Spring semester student teachers. Generally, there was near agreement between the two groups as to the rank order of the factor

Table 1

COMPARISON OF FACTOR RELIABILITY ESTIMATES

PS-TO Factor	Cronbach Coefficient Alpha Correlations		
	Group 1[a]	Group 2[b]	Group 3[c]
Rapport with supervising teacher	.84	.90	.92
Rapport with principal	.93	.90	.95
Rapport with university supervisor	.82	.81	.87
Teaching as a profession	.72	.89	.87
School facilities and services	.76	.78	.79
Professional preparation	.76	.73	.67
Rapport with students	.79	.85	.88
Rapport with other teachers	.78	.89	.87
Student teacher load	.69	.71	.71

[a] These coefficients were reported in an addendum to the PS-TO by Bentley and Price (1972). The values were computed on N = 179 student teachers.

[b] These coefficients were computed on N = 45 student teachers in the Agricultural Education Department at Iowa State University, 1977-78 school year.

[c] These coefficients were computed on N = 95 student teachers in the Department of Agricultural Education at Texas A&M University from 1980-1982.

Table 2

MEANS, STANDARD DEVIATIONS, RANKS, AND ANALYSIS OF VARIANCE FOR PURDUE STUDENT-TEACHER OPINIONAIRE FACTORS

PS-TO Factor[a]	Total N = 95		Fall Semester N = 50		Spring Semester N = 45		F-Ratio	F-Prob.
	Mean S.D.	Rank	Mean S.D.	Rank	Mean S.D.			
Rapport with university supervisor	68.27 18.44	2	67.10 18.30	1	69.56 18.72		.417	.520
Rapport with students	67.69 15.37	1	68.16 15.92	2	67.17 14.91		.097	.756
Rapport with supervising teacher	65.46 20.22	3	66.52 20.24	3	64.29 20.36		.285	.595
Student teacher load	64.92 16.96	4	66.48 16.91	5	63.19 17.04		.885	.349
Rapport with other teachers	62.47 17.02	7	61.60 15.49	4	63.42 18.71		.269	.605
School facilities and services	62.12 17.05	6	62.95 15.42	6	61.19 18.84		.249	.619
Professional preparation	60.46 13.80	5	63.96 11.52	9	56.57 15.14		7.23*	.009
Teaching as a profession	58.96 18.32	8	60.77 19.08	8	56.94 17.42		1.03	.312
Rapport with principal	54.79 25.05	9	52.00 26.88	7	57.90 22.74		1.31	.254

[a]Factors are listed in rank order according to mean ratings of the total sample

scores, with the exception of the factors "rapport with other teachers" and "professional preparation". The factor "rapport with other teachers" ranked seventh for Fall semester student teachers and fourth for Spring semester student teachers. Only one statistically significant difference between mean scores for Fall and Spring student teachers was found; the factor "professional preparation" ranked last for the spring semester group and fifth for the fall semester group. However, it is important to note that the mean score of the spring group for the factor "professional preparation" was 56.57 indicating that spring semester student teachers neither strongly agreed or strongly disagreed with statements concerning professional preparation. The overall mean scores for seven of the nine factors were greater than 60 percent indicating agreement with the PS-TO statements. The factor "rapport with principal" received the lowest mean rating (mean = 52) from the fall semester group; however, a mean of 52 would reflect a neutral opinion of the part of Fall semester student teachers toward the factor of "rapport with principal".

Data in Table 3 show the relationship of the nine PS-TO factors and "plans to teach". (The factor "plans to teach" was assessed by student teachers simply responding to the statement "I plan to teach vocational agriculture" with the 1 to 11 disagree-agree framework.) Six of the nine factors showed statistically significant correlations ($p < .05$) with "plans to teach". The factor "teaching as a profession" showed the highest correlation with plans to become a vocational agriculture teacher. This same factor ranked eighth in the list of factors in Table 2; students were neutral in their opinions of "teaching as a profession." The lack of a highly positive attitude towards "teaching as a profession" considered

Table 3

CORRELATION OF PURDUE STUDENT-TEACHER OPINIONAIRE FACTORS AND PLANS TO TEACH

Factors	Correlation with Plans to Teach r*	Significance
Teaching as a profession	.57	.000
Rapport with students	.33	.000
School facilities and services	.24	.011
Rapport with university supervisor	.24	.011
Professional preparation	.22	.015
Rapport with supervising teacher	.19	.029
Student teacher load	.11	.138
Rapport with other teachers	.08	.198
Rapport with principal	.05	.312

N = 95
*Pearson Correlation Coefficient

with the high correlation between "teaching as a profession" and plans to become a vocational teacher may be indicative of the relatively low percentage of prospective teachers that enter the profession. Two factors, "rapport with other teachers" and "rapport with principal" showed little correlation with plans to become a vocational teacher.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings presented in this paper, the following conclusions and recommendations are made.

1. The certainty method of scoring the Purdue Student-Teacher Opinionaire has been demonstrated to produce sufficiently reliable results to warrant its use.

2. There is little significant difference in the attitudes toward student teaching of fall semester student teachers as compared with spring semester student teachers. However, fall student teachers reacted more favorably toward their professional preparation than did the spring semester student teachers. Perhaps, the undergraduate curriculum prior to student teaching should be examined in view of the different responsibilities placed upon a student teacher in the fall semester as compared to the spring semester. The curriculum prior to student teaching may emphasize activities associated with fall semester student teaching. (In Texas, fall student teachers usually get much experience teaching basic agriculture such as breed identification, livestock selection, and soils--- and training leadership teams. Conversely, spring semester student teachers traditionally experience more preparation of judging teams and "record book" applications such as state degree applications, chapter award applications, etc.)

3. Attitudes toward student teaching was positively correlated with plans to teach vocational agriculture. A strong relationship exists for several of the nine PS-TO factors and plans to teach vocational agriculture. However, it is important to note that a cause and effect relationship was not determined. Interestingly, some of the factors which were ranked low by the student teachers on the PS-TO did show a high correlation with plans to teach vocational agriculture. Improving the image of "teaching as a profession" might contribute significantly to increasing the percentage of student teachers that enter the profession. Similarly, "rapport with students" correlated significantly with plans to teach. (Does this suggest that teacher educators need to select student teaching centers with well-disciplined students who respond to student teachers?) Next, "school facilities and services" was positively related to plans to teach. Again, selection of the student teaching center may be important. Finally, the student teachers' plans to teach were positively correlated with their "rapport with university supervisor". Perhaps this individual can have an influence on a students' decisions of whether or not to teach.

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