A Comparative Analysis of Perceived Importance of Teacher Activities Associated With the Program Components of Vocational Agriculture

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Teacher education in agriculture has made inroads in the recent past to help overcome the extreme shortage of qualified professionals to staff the available teaching positions (Craig, 1983). Although the shortage has not been alleviated, the situation is improved. Several studies were conducted in the 1970's in an attempt to isolate factors which may have contributed to the disparity between the supply and demand of qualified teachers of vocational agriculture. Among the reported studies, writers such as Mattox (1974) and Moore and Camp (1979) attempted to identify and isolate reasons why practicing teachers of vocational agriculture exited the teaching profession. Hillison, Hagee and Paulette (1982) and Pritchard (1982) reported on recruitment and scholarship programs which had a positive impact upon undergraduate enrollments in agricultural education.

Concurrently with the efforts made in retention and recruitment, a number of studies were reported which dealt with analyses of activities of teachers of vocational agriculture. These studies attempted to determine the relative importance of selected teacher activities as perceived by local school administrators and the teachers themselves. Cole (1977) pioneered research in this area in Iowa and Utah which subsequently has been replicated in other states. A recent version of the study and activities of teachers of vocational agriculture was reported in which principals and superintendents were surveyed along with the teachers (Rush & Foster, 1984). The study reported that teachers and administrators differed in their perceptions of the importance of selected teacher activities, while superintendents and principals were in close agreement on nearly all activities.

Previous studies made little attempt to delve into the program components in which the teachers and administrators differed in their perceptions of importance. Rather than simply replicating the study of perceptions of importance, this study made a critical, detailed, comparative analysis of those perceptions. Such analysis provided the opportunity to analyze the respondents' perceptions of the importance of teacher activities associated with the various components of a total program of vocational agriculture. The analysis revealed striking perceptual discrepancies between teacher and administrator with respect to the components of a total program of vocational agriculture and has implications for the promotion of vocational agriculture programs, teacher retention and in-service activities conducted by state leadership in agricultural education.

Purpose of the Study

The primary purpose of this study was to analyze the perceived importance of teacher activities associated with the program components of vocational agriculture by Arizona teachers of vocational agriculture and secondary school principals during the 1984-85 school year. The following research questions were set forth:

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1. To what degree do principals differ from teachers in their perceptions of importance of activities considered important by teachers associated with teaching and managing a program of vocational agriculture?

2. How do teachers of vocational agriculture and their principals compare in their perceptions of importance of teacher activities associated with the components of a total program of vocational agriculture?

Method and Procedures

Population and Sample

The target population selected for this study included all teachers of vocational agriculture in Arizona who had taught longer than one year and the principal responsible for each teacher. Because of the nature of the state and the relatively small number of teachers and principals in high schools offering programs in vocational agriculture, the entire population was used in the study. The target population included 56 teachers of vocational agriculture and 44 secondary school principals.

Design and Instrumentation

The design of this study was based upon the procedure described by Tuchman (1972) as the Criterion-Group Design. The instrument utilized in this study was developed and first used by Cole (1977) in a study conducted in Iowa and Utah. The instrument employed a 99-point Likert-type scale with descriptors "Very Important," "Somewhat Important" and "Not Important" attached to the scale values of 99, 50 and 1 respectively. The scaling allowed for transformation of response values to normal deviates. Such data transformation resulted in increased reliability and validity (Cole, 1977). This study incorporated the same instrument, with minor modifications for Arizona, to gather necessary data. Sixty-two activities were included on the questionnaire used in Arizona. In order to determine the reliability of the instrument, the test-retest method (Guilford & Fruchter, 1978) was used. The instrument was administered to a group of graduate students in agricultural education who were similar in academic preparation yet independent of the respondents. A two-week period lapsed between the test and retest in an attempt to overcome major recollection of test items. The resultant Pearson product moment correlation coefficient of stability computed between the two sets of scores was .86.

Procedures

Data were collected via a mailed questionnaire. A cover letter was sent to each teacher and principal which explained the nature of the study and requested their independent participation and response. A follow-up letter and second questionnaire were sent to those who failed to return the first questionnaire. The respondents were assured anonymity.

The statistics utilized consisted of the SPSS version of analysis of variance (ANOVA) using the group means. The program produced the mean and standard deviation for each group based upon scaled responses, the analysis of variance, the corresponding F value and the significance of the F value.

Findings

The response rate from teachers was 78.6% with 44 of 56 instruments returned. The response from principals was 33 of the 44 for a rate of 75%. Two different procedures were used to analyze: (a) overall differences between respondent groups; and (b) teacher activities by program components.

Overall Differences

In the analysis of the overall differences, only activities which received a mean value of 60.0 or greater from teachers were used and labeled "important." This arbitrary cut-off mean value represented both the upper 40% of the 99-point scale used and a point between the descriptors "Very Important" and "Somewhat Important." A total of 49 of the 62 activities had mean values above the cut-off point. Twenty of the 49 activities showed a significant difference between responses of teachers and principals as displayed in Table 1.

Analysis by Program Components

Considering all 62 activities, the ones in which there was a statistically significant difference in mean values between the two respondent groups tended to cluster into certain program components. Specifically, the component relating to SOE and its inherent teacher activities revealed major differences in perception of importance between teachers of vocational agriculture and secondary school principals. In fact, principals did not place high importance on activities associated with SOE programs.

1. As can be seen in Table 2, both the principals and teachers indicated the activity "Advise FFA chapter meetings" was the most important in the FFA component by mean rating of 85.42 and 93.57, respectively.

2. Activities relating to FFA were considered equally important by both groups and, overall, were considered very important.

3. Secondary school principals' perceptions of the importance of requiring students to maintain an SOE program was not as high as that of the teachers of vocational agriculture.

4. Teachers felt the SOE visit was more important than did principals.

5. Neither group perceived cooperative education as an important part of the activities of a teacher of vocational agriculture.

6. Major differences existed in perception of importance of summertime supervision of the SOE program component between teachers of vocational agriculture and secondary school principals.

7. Both groups placed the importance of the program components in the following order: (a) Technical Agriculture; (b) Agricultural Mechanics; (c) FFA; (d) SOE Program; and (e) Adult Education.

Conclusions and Recommendations

1. The program component dealing with the FFA was considered important by both groups; however, specific activities relating to FFA showed significant differences in importance.

Table 1

Comparison of Mean Responses with Significant Differences Between Teachers of Vocational Agriculture and High School Principals on Activities Perceived as "Important" by Teachers of Vocational Agriculture

Activity	Mean Value: Teacher (N=44)	Mean Value: Principal (N=33)	F Value	Prob.
Teach high school vo-ag classes	97.50	94.85	6.6588	.0118
Advise FFA chapter meeting	93.57	85.42	5.1525	.0261
Plan and manage the ag. dept. budget	93.20	87.88	5.7154	.0193
Supervise the student's experience program when the student is most in need of help and/or most desirous to learn	92.34	77.53	12.7089	.0007
Provide instruction in aricultural mechanics as part of the vocational agriculture program	91.91	79.85	15.8199	.0002
Make supervisory visits to student's supervised occupational experience program	90.98	80.52	8.1035	.0057
Require students to maintain an SOEP	90.70	74.00	14.3002	.0003
Counsel students individually on career and other personal matters	89.89	79.61	10.2980	.0020
Supervise an FFA Banquet	87.18	73.24	8.1336	.0056
Have the classroom and shop facilities in compliance with OSHA regulations	86.68	94.70	8.3551	.0050
Use the majority of summer time for supervision of students' supervised occupational experience programs	86.07	65.94	18.2441	.0001
Visit potential (preregistered) agriculture students during the summer months	85.16	74.21	4.9846	.0286
Attend district and state called meetings and conferences	85.05	71.45	10.4507	.0018
Use a portion of summer time to clean, reorganize, order supplies and refurbish the shop	84.82	70.67	11.7593	.0010
Participate in AVATA, NVATA, AZVA and AVA	84.42	64.06	15.6342	.0002
Meet informally with agricultural and business leaders in the community	83.36	68.79	13.0019	.0006
Participate in school open house and/or parent-teacher conferences	82.84	93.27	10.9321	.0015
Keep abreast of all OSHA regulations which would affect the agriculture program and students	80.27	90.55	7.1476	.0092
Publish articles regularly in the local paper	76.48	63.33	8.9690	.0037
Prepare students to present radio and television broadcasts on agriculture and FFA activities	64.34	52.18	4.0156	.0487
Mean	86.33	77.10		

Table 2

Comparison of Teacher and Principal Mean Responses to Vocational Agriculture Teachers' Activities Associated with Components of a Total Program of Vocational Agriculture

Activities by Program Component	Mean Value: Teacher (N=44)	Mean Value: Principal (N=33)	F Value	Prob.
FFA				
Advise FFA Chapter meetings	93.57	85.42	5.1525	.0261
Supervise an FFA Parent-Member Banquet	87.18	73.24	8.1336	.0056
Conduct an FFA Chapter Program of Activities	81.77	78.64	.4871	.4874
Conduct an Officer Training Program for FFA Chapter Officers	80.39	74.21	1.8372	.1793
Prepare students to participate in FFA leadership development programs	79.98	77.76	.2718	.6037
Prepare students for participation in FFA Contest	75.20	79.60	.7358	.3937
Overall Mean (FFA)	83.02	78.15		
SOE Program				
Make supervisory visits to students' supervised occupational experience program	90.98	80.52	8.1035	.0057
Require students to maintain a supervised occupational program	90.70	74.00	14.3002	.0003
Use the majority of summer time for supervision of students' supervised occupational experience programs	86.07	65.94	18.2441	.0001
Organize and coordinate an Agricultural Cooperative Education Program	58.88	59.15	.0016	.9678
Overall Mean (SOE)	81.66	69.90		
Technical Agriculture				
Teach high school vocational agriculture classes	97.50	94.85	6.6588	.0118
Agricultural Mechanics				
Provide instruction in agricultural mechanics as part of the vocational agriculture program	91.91	79.85	15.8199	.0002
Adult Education				
Teach or provide leadership for an adult education program	49.98	42.39	1.7293	.1926

2. Major differences existed in perception of importance of the SOE Program component between teachers of vocational agriculture and secondary school principals. Specifically, principals did not place high importance on activities involved in planning, conducting and supervising SOE programs.

3. Teachers of vocational agriculture and high school principals rated the relative order of importance of the five components of a total program of vocational agriculture the same.

4. Activities which teachers perceived as important yet principals perceived as significantly different tended to be those which dealt with SOE program, management of the department budget, use of time during the summer and teacher involvement in community and professional activities.

5. Activities which teachers perceived as important and principals concurred tended to be those which dealt with FFA, program evaluation and planning, articulation and coordination, program administration and school activities.

6. There is a need for in-service education to inform high school principals of the mission of vocational agriculture and the importance of its component parts and associated activities.

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