

IDENTIFICATION OF SPECIFIC AREAS OF VOCATIONAL
AGRICULTURE TEACHING IN NEED OF THE GREATEST
IMPROVEMENT: A MODIFIED DELPHI APPROACH

Layle D. Lawrence
and
Anthony T. Mallilo

Agricultural Education
West Virginia University

Educational programs remain strong only if problems are identified and appropriate steps are taken to eliminate or overcome them. Researchers have attempted to identify problems and strengthen programs through a determination of preservice and inservice needs expressed by vocational agriculture teachers (Epeju, 1978; Garner, 1974; Mallilo, 1979; and Norris, 1975). Perceptions of parents and other groups concerning vocational agriculture programs have also been ascertained (Cullen, 1977, and McGhee, 1974) as an approach to program modification and improvement.

Since secondary vocational agriculture programs across the nation operate essentially under a common philosophy and with similar goals and objectives, it seems reasonable to assume that problems encountered at the local level may also be similar. Contacts with large numbers of vocational agriculture teachers and frequent observations of local vocational agriculture departments place state supervisors, teacher educators and vocational agriculture teacher association presidents in a favorable position to assess program development and difficulties. This study was designed to identify specific areas of vocational agriculture teaching in need of the greatest improvement as perceived by state supervisors, head teacher educators and state association presidents.

Methodology

The population for the study consisted of state supervisors of vocational agriculture, head teacher educators of major land-grant institutions in each state, and presidents of state vocational agriculture teacher associations within the continental United States.

A modified Delphi approach was selected as the method of research. Participants were contacted by letter and asked to list the five areas or aspects of vocational agriculture teaching which, in their opinions, were in need of the greatest improvement. Sixty-five percent of the population responded to this request. A follow-up letter was deemed unnecessary as areas mentioned on later returns were essentially identical to those received earlier.

A local committee used a modified Q-Sort to combine and edit similar items while maintaining the integrity of each item. The final list of 57 items was placed in a questionnaire format using a Likert-type scale for rating each statement. The questionnaires were then mailed to the population, and after one follow-up letter, an 83.8 percent return was achieved.

An overall mean score was derived for each item, and items were then ordered by rank. Group means, by position of the respondent and by NVATA region, were also determined. The twenty items with higher overall mean scores are presented in Table 1. Since the means obtained are from the entire population of groups surveyed, inferential statistical analysis was deemed inappropriate.

Findings

Recruitment and retention of competent instructors was seen as the area of vocational agriculture teaching in need of the greatest improvement. Surprisingly, however, state supervisors rated the need for labor market information as their top concern. This item was ranked second by the respondents as a whole although it was not rated highly by teacher educators or presidents of vocational agriculture teacher associations.

Half of the items appearing in the top twenty concerns pertained to only two aspects of vocational agriculture--supervised occupational experience (SOE) programs and adult/young farmer education. Supervisors and teacher educators indicated greater need for improvement in quality, scope and diversity of SOE programs, and in frequency and effectiveness of supervision than did state presidents.

The item concerning adult/young farmer education as a component of each local vocational agriculture program, ranking third overall, also showed considerable differences of opinion among the three groups with presidents again rating the need for improvement somewhat lower than supervisors and teacher educators. Rather similar opinions were expressed regarding other statements dealing with adult education, i.e., compensation, identification of adult needs, and the need for adult programs in off-farm agricultural areas.

Considerable need for improvement in money matters (teacher salaries, compensation for adult programs and funding for equipment, supplies, travel and facilities) was perceived by all three groups, but especially by state presidents. Supervisors and teacher educators perceived greater need for improvement in two curricular areas (business management and instruction for the handicapped), time management, enforcement of state standards and use of advisory councils than did state presidents. Surprisingly, teacher educators and state presidents indicated greater concern regarding adequacy of state level supervisory staffing and leadership than did supervisors themselves.

Table 1

AREAS/ASPECTS OF VOCATIONAL AGRICULTURE TEACHING IN NEED OF GREATEST IMPROVEMENT AS PERCEIVED BY
STATE SUPERVISORS, HEAD TEACHER EDUCATORS, AND PRESIDENTS OF STATE VOCATIONAL AGRICULTURE TEACHER ASSOCIATIONS

Overall Rank and Item	Position		NVATA Region				Overall Mean (N=119) S.D.				
	SS (n=39)	TE SP (n=43)	I (n=21)	II (n=17)	III (n=15)	IV (n=18)		V (n=16)	VI (n=32)		
1. Recruitment and retention of competent vo-ag teachers	4.29	4.26	3.97	4.24	4.00	4.53	4.50	4.13	3.90	4.18	0.91
2. Labor market information for agricultural occupations	4.36	3.83	3.59	4.05	3.88	3.33	3.94	4.00	4.13	3.93	0.97
3. Adult education, including YFA, as a component of each local vo-ag program	3.95	4.17	3.59	3.81	3.41	3.93	4.06	4.06	4.09	3.92	1.13
4. Supervised occupational experience programs as an integral part of the instructional program	3.95	4.23	3.43	3.71	3.59	3.87	4.00	3.69	4.22	3.89	0.95
5. Year round instruction and supervision in SOEPs	3.89	4.07	3.68	3.86	3.41	4.07	3.83	3.69	4.22	3.89	0.99
6. Adequate compensation for adult education programs	3.73	4.10	3.81	3.86	3.53	3.29	4.22	4.07	4.10	3.89	1.02
7. Frequency and effectiveness of experience program supervision	4.05	4.07	3.46	3.86	3.65	4.27	4.00	3.63	3.88	3.87	0.84
8. Expansion of SOEPs in off-farm areas through placement and cooperative education	4.10	4.05	3.43	3.86	3.76	4.13	3.56	3.69	4.09	3.87	0.81

9. Competitive teacher salaries	3.72	3.86	3.95	3.52	4.19	4.21	3.56	4.00	3.81	3.84	0.97
10. Emphasis on agribusiness/ farm business management	3.73	3.95	3.64	3.81	3.41	3.43	3.72	3.87	4.13	3.78	0.99
11. Planning, development, growth & scope of SGEs	3.79	4.02	3.43	3.67	3.47	3.87	3.94	3.81	3.81	3.76	0.81
12. Identifying needs of employed adults	3.73	3.79	3.73	3.76	3.82	3.07	3.56	3.80	4.10	3.75	1.03
13. Time management (estab- lishing priorities)	3.74	3.88	3.43	3.76	3.59	3.67	3.94	3.50	3.68	3.69	0.84
13. Development and enforcement of state vo-ag standards	3.68	3.86	3.51	4.00	3.29	3.40	3.72	3.88	3.74	3.69	0.97
15. Instruction for handicapped and special needs students	3.82	3.91	3.24	3.62	3.18	3.47	3.78	3.81	3.94	3.67	0.98
16. Adequate funding for equip- ment, supplies, travel and facilities	3.63	3.72	3.65	4.00	3.35	3.27	3.67	3.75	3.77	3.67	0.97
17. Using summer employment for supervision of experience programs	3.74	3.75	3.46	3.25	3.65	3.33	4.00	3.53	3.94	3.66	0.89
18. Maintaining adequate State level supervisory staff and leadership	3.58	3.76	3.59	3.67	3.20	3.78	3.78	3.75	3.67	3.65	1.11
19. Adult education in off-farm agricultural occupations	3.78	3.68	3.46	3.52	3.00	3.43	3.83	3.73	4.03	3.64	1.09
20. Formation and effective use of local advisory councils	3.55	3.86	3.35	3.38	3.29	3.60	3.78	3.75	3.74	3.60	0.84

RATING SCALE:

- 1 - No Improvement Needed
- 2 - Little Improvement Needed
- 3 - Some Improvement Needed
- 4 - Much Improvement Needed
- 5 - Great Improvement Needed

When data are categorized by NVATA regions, mean responses indicate rather wide divergencies of perceptions. Participants from regions IV, V and VI (the eastern U.S.) perceived greater need for improvement in adult education than did those from other regions. In general, the various aspects of SOE programs were seen to need greater improvement by respondents from regions III, IV and VI. Respondents in region VI also showed concern with items pertaining to off-farm agricultural occupations.

The least concern for vocational agriculture teacher supply was voiced by participants from region VI, and respondents from regions I, IV and VI indicated somewhat less dissatisfaction with adequacy of teacher salaries than did those from other regions. When all 20 items are scrutinized *in toto*, it can be seen that region VI respondents perceived the greatest need for improvement of various aspects of vocational agriculture teaching, whereas those from region II perceived the least.

Recommendations

Based upon the findings of this study, the following recommendations were made:

1. Recruitment and retention of competent vocational agriculture teachers continues to be a major concern. Efforts should be intensified to further involve teachers, supervisors, agricultural education faculty and students, counselors and other school and community personnel in active recruitment programs through various methods and media.
2. SOE programs and adult/young farmer education are major areas perceived to be in need of improvement. Improvement in both areas must begin in undergraduate courses and student teaching experiences designed to impart philosophy, methodology and confidence. Further assistance should be provided through inservice education and encouragement from local and state supervisory personnel.
3. Research efforts should be directed toward ascertaining labor market needs in occupations which require agricultural knowledge and skills and in identifying educational needs of employed adults.
4. Additional emphasis should be placed in preservice and inservice programs on effective use of local advisory councils and in the area of instruction for handicapped and special needs students.

References

- Cullen, John W., Jr., and Layle D. Lawrence. "Parents' Evaluation of the Vo-Ag Program," *Agricultural Education*, 51 (July, 1978), 20.

(continued on page 63)