

Opinions of School Administrators Concerning the Purpose, Community Acceptance, and Occupational Placement as a Basis for Justification of Vocational Agriculture Programs

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The decade of the 1980's will likely be viewed as a time when educational reform was a major topic on the nation's agenda. Critics at the local, state, and national levels have challenged the quality of the country's educational system and many have indicated that programs do not measure up to public expectations. However, Webb (1959), Shinn (1976), Kimmons (1977), Clary (1977) Jewell (1979), and Jewell (1980) indicated that administrative support for vocational agriculture programs were very positive at the time of their studies.

During the past decade, Agricultural Education in North Carolina has undergone a decline in the number of vocational agriculture programs, teachers, and students. These reductions have been due in part to reform efforts such as consolidation, local autonomy, sensitivity to industrialization, and the national movement for excellence in education which placed emphasis on increasing the quantity of basic academic course offerings. In addition, recruitment and retention of vocational agriculture teachers during the 1980's have been hampered because of the educational system's inability to successfully complete with expanded job opportunities for teachers outside the classroom.

In order to have a positive influence on the changes occurring in agricultural education and to upgrade public confidence, emphasis needs to be placed on analyzing those factors which could have a negative effect on local vocational agriculture programs and on developing strategies for overcoming or improving detrimental situations. Knowing that the concept of local autonomy allows local administrators to greatly influence their local educational programs with policy and programmatic decisions, a need exists to collect current data that portrays the opinions of educational administrators toward vocational agriculture.

Purpose and Objectives

The purposes were to determine if significant differences existed among the opinions of public secondary school principals, superintendents, and vocational education directors toward vocational agriculture programs and to determine if trends were occurring in opinions of school administrators that would warrant reconsideration of the organizational structure of programs and/or teacher preparation in agricultural education. More specifically, the research objectives were as follows:

1. To examine the opinions of public secondary school superintendents, vocational education directors, and principals toward selected aspects of vocational agriculture programs in North Carolina.
2. To determine if statistically different opinions exist among public secondary school superintendents, vocational education directors, and principals toward vocational agriculture programs in North Carolina.
3. To compare the opinions of 1985-86 school administrators with those of a similar study which was conducted in 1978-79 to determine if there has been a significant change in the opinions of the administrators toward vocational agriculture during the seven year time period.

Procedures and Analysis of Data

This study was designed to replicate and build on the data base of a study which was done in North Carolina (Jewell, 1980) during the 1978-79 academic year. The population for this study consisted of all North Carolina public secondary school superintendents, vocational education directors, and principals which had vocational agriculture as a part of their curricula (**N=553**) during the 1985-86 academic year. The 1985-86 North Carolina Vocational Agriculture Directory was used to identify the local education **agencies which had vocational** agriculture as a part of their curricula and served as the frame for the study.

According to Krejcie and Morgan (1970), a sample size of 226 is needed to represent a population of 553 when a simple random sample is drawn. However, Tatsuoka (1982) cautions that when stratified samples are used rather than simple random samples, smaller samples should be drawn to more accurately represent the population because the design effect is less than one for stratified samples. Therefore, the sample size recommended by Krejcie and Morgan was reduced approximately ten percent (from 226 to 200) and was drawn as a proportionally stratified sample composed of 50 superintendents, 50 vocational education directors, and 100 principals. The reduced study sample selected to account for the design effect for stratified sample was in excess of 33% of the population for each type of administrator.

A confidential 45-item survey instrument was used to collect the research data for both the 1978-79 and 1985-86 studies. It was a slightly modified version of an instrument originally designed and used by Webb (1959), Shinn (1976), and Kimmons (1977). Content validity of the instrument for administration in North Carolina was determined by the use of a panel of experts composed of agricultural education teacher educators and state consultants.

Similar techniques were used for data collection for both the 1978-79 and 1985-86 studies which were conducted in North Carolina. The questionnaires were mailed to each of the 200 school administrators during the fall semester of each academic year with a cover letter and self-addressed return envelope. To control for nonresponse error, nonrespondents were sent a follow-up letter three weeks after the initial mailing. A second follow-up letter was sent to nonrespondents three weeks after the first follow-up mailing. The initial mailing yielded a return of 81 completed instrument in 1985-86. The follow-up mailings resulted in an additional 42 responses, for a total of 123 responses (61.5% of the sample). According to Miller and Smith (1983) late respondents have been found to be very similar to nonrespondents. Based on this finding, data from late respondents (those who responded after receiving either of the follow-up letters) were statistically compared to data from the early respondents. Since no significant differences were found between early respondents and late respondents, the data sample was assumed to be representative of the population; and the data from early and late respondents were combined for analysis. The overall return of 61.5% in 1985-86 represented a 52% return by principals, an 86% return by vocational education directors, and a 56% return by superintendents. This compared to an overall return of 80% in 1978-79 which was composed of a 78% return from principals, an 80% return from vocational education directors, and an 84% return from superintendents.

Descriptive statistics including frequencies and percentages were used to describe the data. Chi square statistics were used to determine if significant differences existed between or among the opinions of different types of school administrators. An alpha level of .05 was set a priori.

Results

Administrators are in a position to determine to a large extent the purpose of instruction in vocational agriculture programs. However, there were significant differences-in opinions among the three groups of administrators in both 1978-79 and 1985-86, concerning the controlling purpose of vocational agriculture programs in North Carolina. The opinions of the principals were significantly different than those of the vocational education directors in both 1978-79 and 1985-86. A smaller percentage of the principals saw training for employment in agricultural occupations as the controlling purpose of vocational agriculture programs than did the vocational education directors. Opinions of the principals and directors also differed greatly regarding the need to provide general agricultural knowledge as a controlling purpose of the programs in that a much larger percentage of the principals rated the purpose higher than did the directors. The opinions of the superintendents also were significantly different than those of the vocational education directors in 1978-79 in that they tended to support training for farming and training for employment in any occupations as controlling purposes for the programs more than did the directors. However, the opinions of the principals and superintendents regarding the purpose of vocational agriculture were not significantly different during either 1978-79 or 1985-86. While the three groups differed in their opinions concerning the controlling purpose of vocational agriculture, there was no significant change in opinions of either group over the seven year time span between 1978-79 and 1985-86 as to their opinions of the controlling purpose. As reported in Table 1, the majority of all three types of administrators perceived the controlling purpose of vocational agriculture programs to be training for employment in agricultural occupations. However, the percentage of all administrators sharing this opinion decreased from 66.9% (n = 107) in 1978-79 to 53.7% (n = 66) in 1985-86. More principals indicated that the controlling purpose was to gain general knowledge of agriculture, 21.8% in 1978-79 and 36.5% in 1985-86, than either the superintendents or vocational education directors.

Table 1
Opinions of School Administrators Concerning the Controlling Purpose of Vocational Agriculture Programs

	Principals		Superintendents		Directors		Combined	Total
	78-79	85-86	78-79	85-86	78-79	85-86	78-79	85-86
Controlling purpose	(N=78) %	(N=52) %	(N=42) %	(N=28) %	(N=40) %	(N=43) %	(N=160) %	(N=123) %
Train for farming	7.7	3.9	14.3	14.3	2.5	9.3	8.1	8.1
Train for employment in ag occup.	56.4	44.2	66.7	39.3	87.5	74.5	66.9	53.7
Train for employment in any occup.	11.5	9.6	14.3	25.0	2.5	2.3	10.0	10.6
Provide gen. knowledge of ag	21.8	36.5	4.7	14.3	7.5	11.6	13.8	22.8
Other	2.6	5.8	0.0	7.1	0.0	2.3	1.2	4.8

Note. (1) Principals vs. Superintendents vs. Directors (1978-79): $X^2(\text{Chi})(8, n = 160) = 19.94, p < .05$; (2) Principals vs. Superintendents vs. Directors (1985-86): $X^2(8, n = 123) = 24.79, p < .05$; (3) Principals vs. Directors (1978-79): $X^2(4, n = 128) = 13.24, p < .05$; (4) Superintendents vs. Directors (1978-79): $X^2(3, n = 82) = 12.59, p < .05$; (5) Principals vs. Directors (1985-86): $X^2(4, n = 95) = 11.78, p < .05$.

Approximately one third of the 1985-86 school administrators in North Carolina felt a majority of the people in their communities regarded vocational agriculture as an essential part of high school education. Also, based on the data reported in Table 2, over half (55.3%) of the administrators in 1985-86 indicated that a majority of the people in their community regarded vocational agriculture as essential for persons concerned with agriculture. There were no significant differences between or among the groups concerning opinions of the majority of the people in their communities toward vocational agriculture.

Table 2
Opinions of School Administrators Concerning the Attitudes of the Community Toward Vocational Agriculture Programs

	Principals		Superintendents		Directors		Combined	Total
	78-79	85-86	78-79	85-86	78-79	85-86	78-79	85-86
Community attitudes	(N=78) %	(N=52) %	(N=42) %	(N=28) %	(N=40) %	(N=43) %	(N=160) %	(N=123) %
Regard as essential part of education	53.8	30.8	26.2	35.7	45.0	30.2	44.4	31.7
Regard as significant for persons concerned with ag	38.5	55.8	54.8	50.0	42.5	58.2	43.8	55.3
Indifferent toward program	7.7	13.4	19.0	14.3	12.5	11.6	11.8	13.0

Table 3 reflects the opinions of school administrators concerning the percentage of students graduating from high school with four units of vocational agriculture that should enter farming upon graduation in order to justify the program. A significant difference in opinion was found among the different groups of administrators during the 1978-79 school year due to a difference in opinions between the principals and directors. The significant difference between the opinions of the principals and vocational education directors was primarily due to the fact that nearly one third of the principals, 32% ($n=25$), compared to only 15% ($n=6$) of the local directors felt that the percentage of students entering farming was unimportant and should not be used as a factor for justifying vocational agriculture programs. Also, no significant differences were found when comparing the responses of the administrators in the 1985-86 school year. In 1985-86 the principals

were also less concerned about the percentage of students entering farming than were the superintendents or vocational education directors. However, the "percent unimportant" choice was the category selected by the largest percentage of all three types of administrators in 1985-86. When grouping their responses, 73% (n=38) of the principals in 1985-86 indicated the percent of students entering farming was unimportant, or that less than 10% of the graduates needed to enter farming to justify vocational agriculture programs. Over half, 57.2% of the superintendents and 39.5% of the vocational education directors shared this opinion. No significant differences were found when comparing the responses between 1978-79 and 1985-86.

Table 3
Opinions of School Administrators Concerning the Percentage of Graduates That Should Enter Farming to Justify the Vocational Agriculture Programs

Percentage needed	Principals		Superintendents		Directors		Combined	Total
	78-79	85-86	78-79	85-86	78-79	85-86	78-79	85-86
	(N=78)	(N=52)	(N=42)	(N=28)	(N=40)	(N=43)	(N=160)	(N=123)
	%	%	%	%	%	%	%	%
Less than 10	17.9	19.2	9.5	17.9	7.5	7.0	13.1	14.6
10 - 24	28.2	11.5	16.7	17.9	25.0	30.2	24.4	19.5
25 - 49	14.1	7.7	21.4	7.1	27.5	18.6	19.4	11.4
50 - 74	7.7	3.9	9.5	10.7	20.0	7.0	11.2	6.5
75 and over	0.0	3.9	9.5	7.1	5.0	4.7	3.8	4.9
Percent unimportant	32.1	53.8	33.4	39.3	15.0	32.5	28.1	43.1

Note. (1) Principals vs. Superintendents vs. Directors (1978-79): $\chi^2(10, n = 160) = 22.33, p < .05$;
 (3) Principals vs. Directors (1978-79): $\chi^2(5, n = 118) = 12.68, p < .05$.

When examining administrator opinions about the portion of students with four units of vocational agriculture who should enter an agriculturally related occupation upon graduation from high school, significant differences were found among the groups of administrators for both 1978-79, and 1985-86. Significant differences were found between the opinions of the school principals and superintendents regarding the percentage of vocational agriculture program graduates who should enter an agriculturally related occupation in order to justify the programs in both 1978-79 and 1985-86. Opinions of the principals also differed significantly with those of the vocational education directors on this topic in both 1978-79 and 1985-86. The opinions of the superintendents were also significantly different than the directors in 1978-79, but were not significantly different in 1985-86. Significant differences were also found when comparing the responses of the principals between 1978-79 and 1985-86, but significant differences were not found between the opinions of the superintendents or the vocational education directors over the seven year time period. When observing the combined responses in Table 4, it can be seen that approximately 65% (n=80) of the administrators in 1985-86, as compared to approximately 50% in 1978-79, perceived that the number of graduates needing to enter an agriculturally related occupation was unimportant or that less than 24% of the graduates with four units of vocational agriculture needed to enter an agriculturally related occupation in order to justify vocational agriculture programs. The percentage of the administrators who indicated that more than 24% of the program graduates needed to enter an agriculturally related occupation in order to justify the program declined from 50% (n=80) in 1978-79 to approximately 34% (n=43) in 1985-86. These changes indicated that administrators in 1985-86 were not as concerned about the justification of the programs as measured by the number of graduates entering agriculturally related occupations as they were in 1978-79.

Based on data reported in Table 5, the majority of the administrators, 55.6% in 1978-79 and 63.4% in 1985-86, perceived that vocational agriculture programs offered the necessary basic occupational preparation needed for youth to go immediately into farming after graduating from high school. The majority of the administrators, 53.8% in 1978-79 and 62.6% in 1985-86, also felt that their vocational agriculture programs offered the necessary basic occupational preparation needed for the students to go immediately into agriculturally related occupations after graduation from high school. No significant differences were found between or among the groups of administrators concerning their opinions toward the necessary basic occupational preparation being provided the vocational agriculture students. However, the percentage of administrators in 1985-86 was slightly higher than in 1978-79 which indicated they felt the vocational agriculture programs were providing the necessary

Table 4

Opinions of School Administrators Concerning the Percentage of Graduates Which Should Enter Agricultural Related Occupations to Justify Vocational Agriculture Programs --

Percentage needed	Principals		Superintendents		Directors		Combined	Total
	78-79	85-86	78-79	85-86	78-79	85-86	78-79	85-86
	(N=78)	(N=52)	(N=42)	(N=28)	(N=40)	(N=43)	(N=160)	(N=123)
	%	%	%	%	%	%	%	%
Less than 10	6.4	9.6	7.1	7.1	7.5	4.6	6.9	7.3
10 - 24	26.9	28.9	12.5	14.3	15.0	25.6	20.0	24.4
25 - 49	19.2	7.7	30.9	10.7	30.0	18.6	25.0	12.2
50 - 74	15.4	1.9	9.0	28.6	35.0	2.5.6	6.2	16.3
75 and over	0.0	1.9	16.7	14.3	7.5	7.0	23.1	6.5
Percent unimportant	32.1	50.0	23.8	25.0	5.0	18.6		33.3

Note. (1) Principals vs. Superintendents vs. Directors (1978-79): $X^2(10, n = 160) = 35.07, p < .05$; (2) Principals vs. Superintendents vs. Directors (1985-86): $X^2(10, n = 123) = 27.12, p < .05$; (3) Principals vs. Superintendents (1978-79): $X^2(5, n = 120) = 19.24, p < .05$; (4) Principals vs. Directors (1978-79): $X^2(5, n = 118) = 21.98, p < .05$; (5) Superintendents vs. Directors (1978-79): $X^2(5, n = 82) = 12.70, p < .05$; (6) Principals vs. Directors (1985-86): $X^2(5, n = 95) = 22.58, p < .05$; (8) Principals (1978-79) vs. Principals (1985-86): $X^2(5, n = 130) = 16.44, p < .05$.

preparation needed for entering, both, farming and agriculturally related occupations. It was of interest though, that a larger percentage of the superintendents in 1985-86 indicated they did not believe their vocational agriculture programs were providing the necessary basic occupational preparation the students needed to go immediately into farming after graduation from high school than did in 1978-79.

Table 5

Opinions of School Administrators Concerning Whether Vocational Agriculture Programs are Providing Basic Occupational Preparation Needed for Farming or Agriculturally Related Occupations

Responses	Principals		Superintendents		Directors		Combined	Total
	78-79	85-86	78-79	85-86	78-79	85-86	78-79	85-86
	(N=78)	(N=52)	(N=42)	(N=28)	(N=40)	(N=43)	(N=160)	(N=123)
	%	%	%	%	%	%	%	%
Farming:								
Yes	55.1	57.7	57.1	64.3	55.0	69.8	55.6	63.4
No	24.4	28.8	14.3	28.5	10.0	9.3	8.1	22.0
Undecided	20.5	13.5	28.6	7.2	35.0	20.9	26.3	14.6
Agriculturally related:								
Yes	47.4	55.8	59.5	64.3	60.0	69.8	53.8	62.6
No	28.2	23.1	14.3	17.8	15.0	9.3	21.2	17.1
Undecided	24.4	21.1	26.2	17.9	25.0	20.9	25.0	20.3

Note. Farming and agricultural occupations data were analyzed independently using Chi square (X^2) statistics and no significant differences ($p > .05$) were found.

Conclusions

Administrators in general agreement that the main purpose of vocational agriculture is to train high school students for gainful employment in agricultural occupations, and they concur with the philosophy of vocational preparation as the purpose for the existence of vocational agriculture programs. Administrators perceive that their communities consider vocational agriculture as important, especially for those students interested in agriculturally related occupation. They also believe that those students who are truly interested in agriculture enroll in agriculture courses.

Principals tend to perceive more of a need for vocational agriculture programs to be general in nature and to provide general knowledge of agriculture in addition to preparing students for employment in agriculturally related occupations than do superintendents and vocational education directors. Administrators tend to share the opinion that the percentage of students who enter farming or agriculturally related occupations after graduation from high school should not be used as a factor in justifying vocational agriculture programs. However, they consider placement of vocational agriculture programs in agriculturally related occupations as being more important than placement of graduates in farming.

In most instances, the opinions of the three types of school administrators remained the same in 1985-86 as they were in 1978-79. This indicates that administrative support has not declined for vocational agriculture programs in North Carolina even though there is the national movement that would limit enrollment in vocational education courses for many students. Considering the increased recognition in the value of providing general agricultural knowledge and the reduced emphasis on occupational placement for program justification expressed by school administrators, an argument could be made that administrative support for vocational agriculture programs has increased since 1978-79.

Recommendations

Considering the opinions expressed by principals, the number of general and/or introductory agricultural courses offered for the public schools should be increased. This might be best accomplished by expanding agricultural offerings to the middle and elementary grades.

Strategies should be developed to emphasize agricultural literacy as an important aspect of viable vocational agriculture programs to superintendent and vocational and education directors.

Similar studies should be conducted in other states and on a systematic basis.

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