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Michael F. Adelaine

Richard M. Foster

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Attitudes of Nebraska Superintendents, Principals, and Vocational Agriculture Instructors Regarding the Delivery of Adult Education Through Secondary Programs

Michael F. Adelaine, Instructor

Richard M. Foster, Professor

University of Nebraska

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Rapid changes in agricultural technology, coupled with an increasingly older agricultural population, make adult education in agriculture a must (Drueckhammer & White, 1984). In order to facilitate the process of incorporating adult vocational agriculture education into traditional secondary programs, the individuals most directly involved in organizing, funding, and conducting adult programs need to be encouraged to do so.

Viterna (1973) concluded that school administrators were directly responsible for program development. Viterna also found that the same administrators were willing to support young farmer classes in Nebraska. In studying the attitudes of superintendents of comprehensive high schools in Ohio, Miller and Krill (1985) found school administrators to be conceptually supportive of adult vocational agriculture education as part of secondary vocational agriculture programs.

Purpose and Objectives

The purpose of this study was to determine the attitudes held by Nebraska superintendents, principals, and vocational agriculture instructors about the delivery of adult agricultural education programs within the public secondary school system. The specific objectives identified for investigation were to:

1. Determine if differences in attitudes exist among superintendents, principals, and vocational agriculture instructors toward adult agricultural education.
2. Determine if differences in attitudes exist between administrators (superintendents and principals) and vocational agriculture instructors toward adult agricultural education.
3. Determine the preferred agency or organization (extension, community colleges, etc.) for delivery of adult education as perceived by superintendents, principals, and vocational agriculture instructors.
4. Determine if differences in attitudes exist between administrators and vocational agriculture instructors by the presence of an ongoing adult program.

Procedures

This study was a descriptive study of the survey type. The population consisted of all vocational agriculture instructors in Nebraska and the superintendents and principals who administered their programs. A list of current Nebraska secondary schools with vocational agriculture programs

($N = 130$) was obtained from the University of Nebraska, Department of Agricultural Education. From this list, a random sample of the schools (44%) was selected. The superintendents, principals, and vocational agriculture instructors for each of the 57 schools ($N = 171$) comprised the sample.

A questionnaire was developed from a review of literature. A jury of teacher educators from the University of Nebraska-Lincoln Department of Agricultural Education established content validity of the instrument. Reliability was established through the use of the Cronbach's Alpha Reliability Coefficient ($\alpha = .78$).

Each questionnaire contained 30 specific attitudinal items and selected demographic data. Respondents rated each item using a four-point, bipolar scale with the selections 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree.

Analysis of each item and the categorical data was accomplished using inferential statistics. To control for an inflated alpha, the survey items were grouped into four variables: (a) need for the adult program, (b) benefit of the adult program, (c) operation of the adult program, and (d) funding of the adult program. This grouping facilitated a better understanding of attitudes of a categorical nature and assisted in the analysis of the data.

The surveys were mailed to each respondent separately. A telephone call was made to all individuals who had not responded after two follow-up mailings to determine nonrespondent error. A t -test was used to determine if differences existed between the nonrespondent group and those completing the survey initially. No differences were observed. A total response rate of 92.4% (158 individuals out of 171) was included in the study.

Data analysis consisted of calculating means and standard deviations, and determining statistical differences through the use of t -tests and one-way analysis of variance using planned comparisons. Multivariate analysis of variance was used to determine possible interaction effects.

Results

Differences in attitudes among three respondent groups (Objective 1)

Data in Table 1 reflect the agreement of superintendents, principals, and vocational agriculture instructors with attitudinal statements about adult education in agriculture. Table 1 is organized into the four categories of need, benefits, operation, and funding.

While several specific statement differences were observed between teachers and principals and teachers and superintendents, no differences in agreement on statements were observed between principals and superintendents respondent groups. Vocational agriculture instructors had significantly higher agreement ratings ($p < .05$) than did both administrative groups for the statements:

(a) adult programs should be conducted with the aid of an advisory council;

- (b) those who participate in adult programs are strong school supporters;
- (c) adult programs are the responsibility of the community colleges;
- (d) high school's primary responsibilities are to students grades 9-12;
- (e) the free public education system extends to adult students; and,
- (f) local tax dollars should be used to support adult education.

Vocational agriculture instructors had significantly lower agreement ratings ($p < .05$) than did both administrative groups for statements:

- (a) adult programs are the responsibility of the postsecondary schools, not the high school;
- (b) all consumable supplies used by adults should be paid for by adults;
- (c) adult programs need to be self-supporting.

Vocational agriculture instructors had significantly higher agreement ratings ($p < .05$) than principals for the statements:

- (a) use of school facilities during hours school is in session is acceptable;
- (b) use of school facilities during non-regular school hours is acceptable; and,
- (c) Nebraska State Department of Education supports adult education as part of secondary vocational agriculture programs.

Vocational agriculture instructors had significantly higher agreement ratings than superintendents on the following statement: adult education has a viable impact on local agricultural practices.

Table 1
Attitudes of Principals, Superintendents and Vocational Agriculture Instructors Toward Adult Education in Nebraska

Item	Respondent Group				
	Prin	Supt	Teach	Total	
Need (Composite)	<u>M</u>	3.10	3.10	3.10	3.10
	<u>SD</u>	0.35	0.42	0.36	0.37
-Ag is of little importance in our school district		1.30	1.60	1.30	1.40
-Adult Ed programs should be available to everyone in the district		0.64	0.95	0.73	0.80
-Adult programs should be geared toward retraining for new employment		3.20	3.20	3.90	3.30
-Adult programs should include new technological skills needed for employment		0.58	0.65	0.67	0.63
		2.50	2.50	2.40	2.50
		0.61	0.78	0.66	0.69
		3.10	3.10	3.10	3.10
		0.53	0.45	0.46	0.48
Benefits (Composite)	<u>M</u>	3.10	3.00	3.20	3.10
	<u>SD</u>	0.29	0.40	0.35	0.35
-Adults in our district want more information about agriculture		3.10	3.10	3.10	3.10
-Adult programs should serve the non-ag public		0.58	0.44	0.56	0.53
		2.70	2.80	2.70	2.70
		0.58	0.78	0.70	0.68

(table continues)

<u>Item</u>	<u>Prin</u>	<u>Supt</u>	<u>Teach</u>	<u>Total</u>	
-Adult programs improve community attitudes about the school	3.50	3.30	3.40	3.40	
-Adult programs have a visible impact on local ag practices	0.54	0.58	0.64	0.59	
-Participants in adult programs are strong school supporters	2.80	2.70	3.10	2.90**b	
-Adult programs provide good public relations	0.60	0.61	0.58	0.61	
-Adult programs in ag detract from secondary vo ag program	2.90	2.80	3.20	3.00**c	
	0.50	0.69	0.58	0.61	
	3.40	3.20	3.40	3.30	
	0.49	0.47	0.53	0.50	
	1.70	1.80	1.80	1.80	
	0.71	0.56	0.72	0.68	
Operation (Composite)	<u>M</u>	3.10	3.10	3.20	3.10
	<u>SD</u>	0.19	0.24	0.21	0.22
-A high school's primary responsibility is to students in grades 9-12	1.70	1.50	2.10	1.70**c	
-Adult programs are the responsibility of the post secondary vo-tech schools	0.67	0.67	0.84	0.77	
-Adult programs in ag should serve the non-ag public	2.50	2.60	2.00	2.40**c	
-Adult programs should be offered by all high schools that offer vocational agriculture	0.67	0.72	0.52	0.68	
-Comprehensive high schools should offer adult programs when the need is present	2.70	2.80	2.70	2.70	
	0.58	0.78	0.70	0.68	
	2.60	2.50	2.80	2.70	
	0.68	0.76	0.70	0.72	
	3.00	2.90	3.20	3.00	
	0.76	0.77	0.64	0.73	
	2.50	2.70	2.60	2.60	
	0.69	0.65	0.70	0.68	
	2.80	2.70	2.50	2.70**a	
	0.64	0.63	0.58	0.63	
	3.00	3.00	3.20	3.10**c	
	0.56	0.49	0.62	0.57	
	2.20	2.40	2.70	2.40**a	
	0.83	0.84	0.75	0.83	
	3.00	3.00	3.10	3.00	
	0.63	0.34	0.52	0.51	
	3.30	3.40	3.50	3.40**a	
	3.00	3.10	2.90	3.00	
	0.49	0.66	0.75	0.64	
	2.70	2.80	2.90	2.80	
	0.67	0.73	0.74	0.71	
	2.40	2.20	2.50	2.30	
	0.65	0.72	0.80	0.73	
	2.40	2.60	2.60	2.50	
	0.70	0.85	0.70	0.75	
Funding (Composite)	<u>M</u>	2.60	2.60	2.60	2.60
	<u>SD</u>	0.23	0.19	0.21	0.21
-Nebraska State Dept. of Ed supports adult ed as part of secondary vo ag programs	2.70	2.90	3.10	2.90**a	
	0.54	0.45	0.50	0.51	

(table continues)

<u>Item</u>		<u>Prin</u>	<u>Supt</u>	<u>Teach</u>	<u>Total</u>
-All consumable supplies used in adult programs should be paid by participants		3.20	3.30	2.60	3.10**c
		0.59	0.62	0.69	0.70
-State and federal funding is adequate for adult ed	<u>M</u>	2.00	1.80	1.90	1.90
	<u>SD</u>	0.72	0.81	0.90	0.82
-The free public ed system extends to adult education as well		2.20	1.90	2.70	2.20**c
-Adult programs need to be self-supporting		0.85	0.74	0.76	0.84
		3.00	3.10	2.30	2.80**c
		0.75	0.73	0.63	0.79
-Local tax dollars should be used for adult education		1.80	1.70	2.70	2.20**c
		0.72	0.75	0.65	0.65
-Funding of programs is not an issue in adult education		1.70	1.60	1.90	1.70
		0.85	0.80	0.81	0.82

Note. * = $p < .05$ ** = $p < .01$

a = Teachers differ from Principals

b = Teachers differ from Superintendents

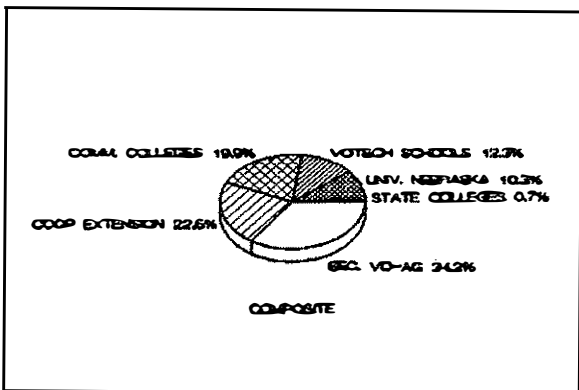
c = Teachers differ from Principals and Superintendents

Differences in attitudes between admin. and vo-ag teachers (Objective 2)

Attitudinal scores of principals and superintendents were combined to reflect one administrative rating which was in turn compared with attitudinal ratings of the instructor group using planned comparisons and analysis of variance. A statistical difference in the area of operation ($p < .026$) was observed. However, when the actual means were reviewed, the difference was not meaningful. All other areas of comparison between administrators and vocational agricultural instructors were not significant.

Preferred agency/organ. for delivery of adult education (Objective 3)

Figure 1 graphically illustrates the percentage of respondents selecting specific agencies and organizations as being most responsible for delivery



of adult education at the local level. Of 158 respondents having a preference, 34.2% indicated the secondary school system was their first choice for delivery of adult agricultural education, followed by the extension service (22.6%), community colleges (19.9%), vocational-technical postsecondary schools (12.3%), the University of Nebraska-Lincoln (10.3%), and the state college system (0.7%).

Figure 1. Agencies/organizations identified as a source of adult education in agriculture.

Differences in attitudes by the presence of an existing adult program
(Objective 4)

The fourth objective addressed interactions that may exist between two demographic variables; respondent group and the attitudinal areas of need, benefits, operation, and funding. To control for an inflated alpha, the two variables believed to have the potential for the most interaction were selected.

The MANOVA procedure was used for this analysis. The four attitudinal areas were analyzed by the position of the respondent and the presence or absence of an adult program. A significant interaction was observed between the presence of an ongoing adult program and respondent group by operation of the adult program (Table 2). Those vocational instructors who have adult programs viewed the operation of the adult programs differently than those instructors who did not have an adult program. They also viewed the operation differently than both superintendents and principals who may or may not have ongoing adult programs.

The attitude of respondents by position toward the benefit of an adult program and the fact they may have an existing adult program showed no significant interaction. There was however, a significant main effect ($p < .001$) indicating those schools with existing adult programs had a higher mean (3.19) than those schools that did not have an adult program (2.99).

Table 2
Differences Among the Respondent Group With Adult Programs by Operation

Source of Variation	SS	df	MS	F-ratio	p
Position	0.259	2	0.129	3.20	.045
Adult Prg x Principal	0.067	1	0.067	1.66	.199
Adult Prg x Supt.	0.177	1	0.117	2.90	.091
Adult Prg x Teacher	0.350	1	0.350	8.62	.004
Adult Program	0.463	1	0.463	11.43	.001
Position x Adult Prg (1)	0.334	2	0.167	4.12	.019
Position x Adult Prg (2)	0.036	2	0.018	0.444	.643
Within cells	4.21	104	0.040		

Note. Adult Prg 1 = Existing Secondary Adult Agriculture Programs
Adult Prg 2 = No Secondary Adult Agriculture Programs

Conclusions and Recommendations

The findings of the study support many of the findings of Miller and Krill (1985), who found that superintendents generally had a positive attitude toward adult education in secondary school systems in Ohio. The following conclusions were developed upon completing the review of the statistical information.

Self-rating attitude toward adult education in the secondary school, 85.4% of all respondents indicated a somewhat positive to positive attitude toward offering adult programs in their system. It was observed that 44.9% of vocational agriculture instructors, 32.6% of the superintendents, and 25.5% of the principals believed the secondary vocational programs were most responsible for delivery of adult agricultural programs at the local level. Overall, 34.5% of the respondents believed that secondary programs should deliver adult agricultural the adult level.

Principals and superintendents had very similar perceptions of the need, benefits, operation, and funding of adult education in agriculture, illustrating uniform administrative agreement. Vocational agriculture instructors were more likely to have higher agreement with statements about the benefits and public support for adult education, while administrators were more likely to safeguard traditional school funding and structure. When funding issues were considered, teachers were more likely to agree that adult education should be funded similarly to the secondary system, while administrators viewed adult education as being more self-supportive in nature.

Those instructors with existing adult programs viewed the operation significantly different than administrators who had existing programs and different than administrators and instructors who did not have adult programs. Further, administrators having adult programs in their school systems viewed adult education significantly more positively than superintendents, principals, and vocational agriculture teachers not having adult education in their school system.

Recommendations

Nebraska Department of Education personnel working in adult education should be aware of the positive attitude of administrators and instructors toward adult education in agriculture in secondary programs. Use should be made of administrators and instructors currently having adult programs in agriculture to convince others of the value of adult education through secondary programs. State supervisors and teacher educators should work cooperatively with secondary administrators in identifying possible sources of funding and support for adult education. These may include the use of locally generated tax dollars or through self-supported program offerings.

Local instructors and administrators should discuss differences in opinion about and support for adult education to ensure greater chance of success at the secondary level. Contractual position descriptions should be developed for instructors who teach both day-class students and adult classes in agriculture. Cooperative adult programs and day-class programs in schools in different areas of Nebraska and in districts with both large and small secondary enrollment should be tried. Additional research investigating the adult student attitude toward the delivery of educational programs through the secondary vocational agriculture programs should be conducted.

(References on p. 31)

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