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Predicting Youth Leadership Life Skills Development Among FFA Members in Arizona, Colorado, and New Mexico

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The Labor Secretary's Commission on Achieving Necessary Skills (SCANS) has identified many leadership skills and qualities among groupings of basic skills, thinking skills, personal qualities, resource allocation skills, interpersonal skills and organizational skills that will be needed by workers for "productive and meaningful employment in today's workforce." (Brock, 1992, p. 22). By focusing on developing agricultural leadership, cooperation, and citizenship, the National FFA Organization also focuses on skills for today's workforce. It is almost taken for granted by agricultural and other educators that youth who participate in youth organization leadership activities such as public speaking, holding an office, or attending meetings are developing leadership skills. How true is this perception?

Brannon, Holley, and Key (1989) found Oklahoma community leaders who participated in vocational agriculture and FFA in high school were more likely to be involved in community affairs organizations, school organizations, church groups, agricultural groups, and educational groups. Townsend and Carter (1983) found a significant positive relationship between FFA participation scores and leadership scores for 12th grade vocational agriculture students in Iowa. Participants in 18 different FFA activities had a higher perception of their leadership skills than nonparticipants. In Tennessee, vocational agriculture/FFA students from superior FFA chapters had higher leadership and personal development scores than students from nonsuperior chapters (Riketts & Newcomb, 1984). Vocational agriculture/FFA students from nonsuperior chapters still had higher scores than nonvocational agriculture students from schools with superior FFA chapters. Miller (1987) found 4-H alumni were more likely to be involved in community activities than nonalumni. Mueller (1989) found a relationship between participation in 4-H leadership activities and youth leadership life skill development. In Iowa, high school students who were officers or committee chairpeople in school or community organizations had higher leadership attainment scores than nonofficers or nonchairpeople (Carter & Spotanski, 1989). Students who had received leadership training also had higher leadership attainment scores on a six-point indicator scale developed by Carter (1989).

Other studies have yielded conflicting results. Vail (1988) found more similarities than differences between national leaders with and without vocational student organization backgrounds. Cubilla (1989) found more similarities than differences between national leaders with or without 4-H backgrounds. Still, the literature generally supports a relationship between participation in youth leadership activities and the development of leadership skills.

Miller (1976, p. 2) defined youth leadership life skills development as self-assessed and organization-specific "development of life skills necessary to perform leadership functions in real life." Boyd, Herring, and Briers (1992) found level of 4-H participation was a significant predictor of leadership life skills development scores among 4-H youth in Texas. They also observed higher leadership life skills development for 4-H members than nonmembers. Dormody and Seevers (1993) found participation in leadership activities to be a significant predictor of youth leadership life skills development among senior 4-H members in Arizona, Colorado, and New Mexico.

Along with participation in youth leadership activities, other variables that have also been shown to have a relationship with youth leadership life skills development in agricultural education are achievement expectancy (Seevers & Dormody,

1993) self esteem (Blackwell, 1990; Mueller, 1989), years in the youth organization (Miller, 1987; Orr & Gobeli, 1986; Waguesback, 1983), age (Boyd et al., 1992), ethnicity (Blackwell, 1990; Seevers & Dormody, 1993), gender (Luft, 1986; Orr & Gobeli, 1986; Seevers & Dormody, 1993; Waguesback, 1983), and place of residence (Heinsohn & Cantrell, 1986).

Previous research in agricultural education on youth leadership life skills development has concentrated on 4-H members. Many past studies have not completed the task of conceptualizing, operationalizing, validating, and assessing the reliability and dimensionality of measures of youth leadership life skills development, particularly for use with FFA members. Seevers and Dormody (1992) completed these steps, beginning with integrating and cross-validating conceptualizations proposed by Harp (1984), Miller (1975), and Waguesback (1983). Validation procedures and assessment for reliability and dimensionality resulted in a summated scale for measuring the leadership life skills development of both 4-H and FFA members (Dormody, Seevers, & Clason, 1993). The scale, used in a previously unresearched and ethnically diverse geographical setting with FFA members, would provide a needed source of data to further strengthen the theoretical base for a relationship between participation in FFA leadership activities and leadership life skills development. Such knowledge could also assist practitioners in developing more effective FFA leadership development programs.

Purpose and Objectives

The purpose of this study was to determine predictors of youth leadership life skills development among 1992-93 FFA members in Arizona, Colorado, and New Mexico. Specific objectives of the study were to:

> Describe FFA members by their youth leadership life skills development, participation in FFA leadership activities, achievement expectancy, self esteem, years in FFA, age, ethnicity, gender, and place of residence.
>
> Determine the predictors of leadership life skills development from among participation in FFA leadership activities, achievement expectancy, self esteem, years in FFA, age, ethnicity, gender, and place of residence.

Procedures

FFA membership rosters for the school year 1992-1992 were obtained from State Departments of Education in Arizona, Colorado, and New Mexico. From the rosters, the population of FFA members in the three states was calculated to be 9,549. At a 95 percent confidence level a sample size of 370 was needed to represent the population (Krejcie & Morgan, 1970). This number was rounded up to 400. A random sample of FFA members, stratified proportionally be state to ensure representation, was generated.

The study used descriptive survey methodology. The dependent variable was youth leadership life skills development; the main independent variable was participation in FFA leadership activities. Other independent variables included as control variables were achievement expectancy, self esteem, years in FFA, age, ethnicity, gender, and place of residence.

All parts of the instrument and a parallel instrument for 4-H were assessed for content and face validity by a panel of experts consisting of two faculty members in vocational education, two state Cooperative Extension Service administrators, a faculty member in educational administration, and two faculty members in research methods and statistics. The 30-indicator, unidimensional Youth Leadership Life Skills Development Scale (YLLSDS) was used to measure the dependent variable (Dormody, Seevers, & Clason, 1993). During its development, the YLLSDS had been assessed for reliability following a pilot test with 262 FFA and senior 4-H members in New Mexico (Seevers & Dormody, 1992). Cronbach's coefficient alpha for the scale was .98. Scores on the YLLSDS could range from 0 to 90.

Participation in FFA leadership activities was measured by a 25-indicator index adapted from Mueller (1989), which listed FFA leadership activities by various levels of participation ranging from no participation through local, district, state, regional and national participation, depending on the activity. Scores on the participation index could range from 0 to 62. A two-week test-retest procedure with 19 youth who were not part of the

sample yielded a reliability coefficient of .97 for the index.

Achievement expectancy was assessed with a two-indicator summated scale adapted from Canfield (1976). One indicator asked members to indicate the level of evaluation they expect to get on their FFA activities and projects ranging from outstanding to poor. The other indicator asked them to indicate the level of performance they expected from themselves during FFA activities and projects, ranging from outstanding to poor. Scores on the scale could range from zero to eight. The two-week test-retest reliability coefficient for the scale was .67.

Self esteem was measured by the Rosenberg Self-Esteem Scale (RSE), a 10-item, unidimensional Guttman scale (Wylie, 1974). Split-half reliability assessment of the RSE during the pilot testing of the YLLSDS yielded a coefficient of .68 (Seevers & Dormody, 1992).

Data were collected following the Dillman (1978) procedure for mail questionnaire administration. Incentives were sent with the three mailings to increase response rate. A response rate of 67 percent (n=266) was obtained. Complete data for the regression analysis was submitted by 256 (64%) of the respondents. To check for nonresponse bias, 10 nonrespondents were contacted by telephone. Nonrespondents were compared statistically to respondents by youth leadership life skills development, years in FFA, age, gender, ethnicity, place of residence and state. The two groups differed significantly only by ethnicity, with respondents having a higher percentage of minority members than nonrespondents. Findings related to ethnicity will not be generalized to the target population.

Objective 1 was analyzed using descriptive statistics (i.e., means, medians, modes, standard deviations, ranges, frequencies, and percentages). Objective 2 was analyzed using stepwise, multiple regression. Due to the exploratory nature of the study, a Type II error was judged potentially as serious as a Type I error. A significance level of 0.15 was set a priori for the regression analysis. Because a large number of independent variables was used in the regression analysis, multicollinearity indices were also analyzed. No serious collinearity problems between the independent variables were observed.

Results

Objective One

FFA members' Youth Leadership Life Skills Development Scale (YLLSDS) scores ranged from zero to 89 with a mode of 66 (n=15) and a median of 67.5. The youth had a mean of 64.2 (SD=17.7) on the YLLSDS. Given this mean, standard deviation, and median, and using the formula: percent possible skewness = mean - median / standard deviation x 100, the distribution of YLLSDS scores was determined to be skewed slightly negatively, containing 19 percent of possible skewness (Table 1).

Scores on the participation in FFA leadership activities index essentially ranged from zero to 32 (one respondent scored a 44) with a mode of 12 (n=37) and a median of 12. FFA members had a mean of 12.6 (SD=7.5) on the index. The distribution of index scores was nearly normal, containing only eight percent of possible skewness (Table 1).

Scores on the achievement expectancy scale essentially ranged from four to eight (one respondent scored a zero) with a mode of six (n=76), median of six, and a mean of 6.1 (SD=1.3). The distribution of scale scores was nearly normal, containing only 8 percent of possible skewness (Table 1).

Scores on the RSE scale ranged from two to six with a mode of six (n=134) and a median of six. FFA members had a mean of 5.3 (SD=0.9) on the RSE scale. The distribution of RSE scores was skewed strongly negatively, containing 78 percent of possible skewness (Table 1).

FFA members' years in FFA ranged from one to eight with a mode of one year (n=86) and a median of two years. Members averaged 2.3 years (SD=1.3) in the organization. The distribution of years in FFA was skewed slightly positively, containing 23 percent of possible skewness (Table 1).

FFA members' ages ranged from 13 to 22 with a mode of 17 (n=69). The members averaged 16.3 (SD=1.5) years of age. The age distribution was skewed slightly positively, containing 20 percent of the possible skewness (Table 1).

Table 1. Descriptive Statistics for Interval and Ratio Data Variables (n=256)

Variable	Mean	Median	Mode	SD	Range
Youth leadership life skills development (YLLSDS)	64.2	67.5	66	17.7	0-89
Participation in FFA leadership activities	12.6	12	12	7.5	0-44
Achievement expectancy	6.1	6	6	1.3	0 - 8
Self esteem (RSE)	5.3	6	6	0.9	2 - 6
Years in FFA	2.3	2	1	1.3	1 - 8
Age	16.3	16	17	1.5	13-22

Table 2. Descriptive Statistics for Nominal and Ordinal Data Variables (n=256)

Variable	Category	f	%
Ethnicity	White	207	80.9
	Minority	49	19.1
Gender	Female	105	41.0
	Male	151	59.0
Place of residence	Farm or ranch	128	50.0
	Rural nonfarm or town <10,000	76	29.7
	Town or city 10,000 to 50,000	36	14.1
	Suburb or city > 50,000	16	6.3

Table 3. Stepwise Multiple Regression Analysis of Youth Leadership Life Skills Development (n=255)

Source of variation	SS	df	MS	F	Prob.>F
Regression	13,295.0	3	4,431.7	16.9	0.0001
Error	66,146.5	252	262.5		
Total	79,441.5	255			

Variables in the equation

Variable	Parameter Estimate	Standard Error	T	Prob.>T	Partial R square
Intercept	33.5	4.7	7.3	0.0001	
Achievement expectancy	4.1	0.8	5.1	0.0001	0.136
Participation in FFA leadership activities	0.4	0.1	2.5	0.0110	0.023
Gender	3.3	2.1	1.6	0.1101	0.009

Because of the low percentage of minority FFA members in the sample (19.1% or n=49), minority categories were combined for analysis. Half the FFA members (n=128) were from a farm or ranch. Another 30 percent (n=76) were either rural nonfarm/ranch residents or from a town or under 10,000 in population. FFA members were 41 percent (n=105) female (Table 2).

Objective Two

Three variables--achievement expectancy, participation in FFA leadership activities, and gender - explained significant amounts of the variance in YLLSDS scores after controlling for self esteem, years in FFA, age, ethnicity, and place of residence (Table 3). Achievement expectancy explained approximately 13.6 percent, participation in FFA leadership activities 2.3 percent, and gender 0.9 percent. The three-variable solution explained 16.7 percent of the variance in YLLSDS scores. The insignificant variables explained only another 0.9 percent of variance in YLLSDS scores. The regression model for predicting youth leadership life skills development from

achievement expectancy and participation in FFA leadership activities is:

YLLSDS score = 33.5 + (4.1)(achievement expectancy score) + (0.4)(participation in FFA leadership activities index score) + (3.3) [gender (where females are coded 1 and males coded 0)]

Conclusions

Achievement expectancy, or a combination of the level of evaluation FFA members expect from others and the level of performance they expect from themselves in FFA activities and projects, had a positive relationship with youth leadership life skills development. It explained close to 14 percent of the variance YLLSDS scores. In a similar study of senior 4-H members, Seevers and Domody (1993) found achievement expectancy explained about two percent of the variance in YLLSDS scores.

Participation in FFA leadership activities had a weak positive relationship with youth leadership life skills development and explained 2.3 percent of the variance in YLLSDS scores. This result is similar to Boyd, Herring, and Briers (1992) who found 4-H participation explained 3.3 percent of the variance in leadership life skills development scores. Seevers and Dormody (1993) found participation in 4-H leadership activities explained 12.6 percent of the variance in YLLSDS scores among senior 4-H members.

Female FFA members had higher youth leadership life skills development than male members and gender explained 0.9 percent of the variance in YLLSDS scores. Seevers and Dormody (1993) found gender predicted 1.7 percent of YLLSDS scores among senior 4-H members.

Leadership life skills development was not related to self esteem, years in FFA, age, ethnicity, or place of residence.

Recommendations

Agricultural educators should focus on satisfying FFA members' achievement motives when developing FFA leadership activities. Challenging activities that balance cooperative, competitive, and personal development goals, should be developed.

Youth should be encouraged to join FFA and participate in leadership activities regardless of self esteem, years in FFA, age, ethnicity, or place of residence. Further research should look at which FFA activities are most effective in developing leadership life skills development and how these activities can be improved.

Further research should be conducted to determine why achievement expectancy scores appear to be a stronger predictor of youth leadership life skills development among FFA members than among senior 4-H members (Seevers & Dormody, 1993), whereas participation in leadership activities appears to be a stronger predictor of your leadership life skills development among senior 4-H members (Seevers & Dormody, 1993) than among FFA members. Are these differences real? Is FFA more achievement oriented in its activities than 4-H? Is 4-H more leadership oriented in its activities than FFA? If so, what can these organizations learn from each other?

Leadership life skills development should be enhanced by the participation of FFA members in planning, implementing, and evaluating leadership activities. Further research should be conducted to determine the perceptions of FFA advisors and members regarding member participation in these stages of leadership activities.

One of the national goals for agricultural education is "to serve all people and groups equally and without discrimination" (National Council for Agricultural Education, 1990, p. 4). Further research should focus on participation in FFA leadership activities by gender and ethnicity.

The prediction model determined by this study explains only 17 percent of the variance in youth leadership life skills development. Further research should search for other predictors.

Measures of youth leadership life skills development, participation in FFA activities, and achievement expectancy used in this study yielded distributions that approached normality for this population. They are recommended for further

research with other youth and in other geographical settings.

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