

Contributions of Pre-Collegiate and Collegiate Leadership Experiences to Alumni Leadership Development

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Abstract

There is a need for strong leaders in the agricultural industry, and organizations are looking for college of agriculture graduates who demonstrate strong leadership abilities. This descriptive study illustrates the most formative leadership-building experiences of college of agriculture alumni. Based on Ajzen's (1991) theory of planned behavior, researchers sought to describe the leadership experiences of undergraduate positional leaders at a land grant university; Compare collegiate leadership experiences based on pre-collegiate activities; Identify experiences participants believed had the greatest impact on their leadership development; and Describe participants' self-perceptions of specific leadership skills. College of agriculture alumni reported the highest pre-collegiate participation in 4-H and the FFA. The collegiate organizations they participated in the most were the Agriculture Honors Society (AGHON) and Ag Hill Council. Former 4-H and FFA members were more likely to be members of college of agriculture organizations, more likely to be officers in collegiate organizations, and more likely to participate, lead, and receive honors in organizations outside of the college of agriculture. Alumni perceived that collegiate leadership organizations had the greatest impact on their leadership development, and they believed that honesty, integrity, and responsibility were the most important leadership traits they had developed.

Introduction

The value of agricultural and extension education, FFA, and 4-H to a college of agriculture has been deliberated for years (Ball, Garton, and Dyer, 2001; Birkenholz and Schumacher, 1994; Park and Dyer, 2003; Schumaker and Swan, 1993). How does agricultural and extension education advance the university's endeavors to provide a well-rounded education for students? How do students benefit from participation in these clubs and organizations? And, does the pre-college leadership education experience have any effect on a college student's involvement in leadership roles while enrolled in college or after graduation?

Professionals in and outside of agriculture cite the need for leaders and leadership development (Gardner, 1990; Kouzes and Posner, 2002; Maxwell, 1993; Schumacher and Swan, 1993) on all levels: communities, businesses, schools, unions, colleges, and governments (Gardner, 1990). Bennis, (1989), Birkenholz and Schumacher (1994), Kouzes and Posner (2002), and Maxwell (1993) believe that leadership is essential, can be learned, and is developed prior to college entrance. While some leadership traits may be inborn or personality related, the skill of leading requires practice and reflection on experiences (Bennis, 1989; Kouzes and Posner, 2002). Ascribing to this philosophy, colleges of agriculture have worked diligently to develop leadership curricula for their students. Even outside of agriculture, researchers determined that students grew in civic responsibility, leadership skill, multicultural awareness, and leadership knowledge as a result of leadership activities (Cress, Astin, Zimmerman-Oster and Burkhardt, 2001).

Cress et al. (2001) reported that involvement in the college environment is positively related to student development. Thus, college activities and organizations contributing to leadership are important because of the positive relationship between these activities and higher levels of educational attainment and increases in personal values (Astin, 1993). Research has also indicated that student-involvement in academic activities had significant and positive correlations to leadership development (Kezar and Moriarty, 2000).

However, it has also been determined that leadership development begins prior to college enrollment. According to Karnes and Meriweather (1989) leadership development programs for younger students have the potential to produce increased self-confidence and responsibility, motivation to initiate activities, stronger communication skills, interpersonal skills, and time management skills. Many undergraduate students who participate in leadership-building activities during high school are active leaders in college and continue to lead in their professional careers. There has been an indication that participation in pre-collegiate youth leadership organizations like the FFA and/or 4-H also adds to

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leadership abilities (Ricketts, 1982; Townsend and Carter, 1983; Wingenbach and Kahler, 1997). Ricketts (1982) concluded that FFA members possessed significantly higher leadership abilities than students who had not participated in FFA. However, there has been limited research to date on the leadership outcomes of students who have taken part in FFA and 4-H programs, and the existing research does not seem to address outcomes past the high school experience.

Brick (1998) found that FFA members who planned to attend college were confident in their leadership skills developed through participation as FFA officers. More recently, Balschweid and Talbert (2000), through the Purdue University/Horatio Alger study of FFA members, showed that members earn higher grade point averages and participate in sports, school, and community activities more than non-FFA members. They concluded that FFA members were more engaged in school and community activities and career preparations than either non-members or the "typical high school student."

Ali-Karni (1986) discovered a positive relationship between high school extracurricular participation and college participation in organizations; therefore, it may be true that pre-collegiate 4-H and FFA participation translates into collegiate leadership participation. Ajzen's (1991) theory of planned behavior posits, "perceived behavioral control, together with behavioral intention, can be used directly to predict behavioral achievement (Ajzen, p. 184)." So theoretically, one could predict that students who serve as officers in high school organizations (intention) develop self-efficacy about leadership (perceived behavioral achievement) and will serve as officers and/or in other leadership roles in collegiate and professional organizations (behavioral achievement).

Dyer and Breja (1999) suggested that more accurate predictors of student retention in college included enrollment in secondary agricultural education courses and experience in agriculture. Many students who achieve success in colleges of agriculture were enrolled in secondary agricultural education courses and participated in FFA.

Students in FFA and 4-H gain valuable leadership skills and practice those skills in activities outside of the traditional classroom. Additionally, the extracurricular, out-of-class experiences of college students contribute to leadership development (Kuhl, 1995). Participation in extracurricular activities prepares students with the skills necessary to be competent in the workplace (Kuhl). Perhaps the contributions agricultural education, FFA, and 4-H make to agricultural colleges include preparing students for leadership experiences in college and beyond in civic and professional life.

Purposes and Objectives

The purpose of this study was to depict the

importance of both pre-collegiate FFA and 4-H experiences and collegiate leadership experiences to alumni in a college of agriculture. A secondary goal was to describe the participants' view of the leadership skills they possess. The following specific objectives guided the research.

1. Describe the leadership experiences of undergraduate positional leaders at a land grant university.
2. Compare collegiate leadership experiences based on pre-collegiate 4-H and FFA experience.
3. Identify experiences participants believed had the greatest impact on their leadership development.
4. Describe participants' self-perceptions of specific leadership skills they possess.

Methods

This descriptive survey study was conducted utilizing a purposive sample of the population of former student leaders in the College of Agricultural and Environmental Sciences (CAES) at the University of Georgia. These students all served in leadership positions in at least three student organizations within the CAES.

The sample for the study was 250 CAES alumni who were known former student leaders. The sample was chosen from the University of Georgia alumni records. The student leader list was developed by combining lists of students who were coded as being involved in certain CAES student organizations. FFA, 4-H, Ag Hill Council (CAES student governance), Alpha Zeta, AGHON (CAES honor society), Brass Gavel, and the Agriculture Club were chosen because these organizations are open to students of any major. From these combined lists, 1,711 unique students were identified. Surveys would be sent only to alumni who were involved in three or more of these organizations, which narrowed the sample to 268. Twelve of these records had incomplete addresses. Six others records were randomly omitted to narrow the final list of known student leaders to 250. The surveys were mailed, along with an addressed, stamped envelope, by the University of Georgia College of Agricultural and Environmental Sciences' Office of College Advancement. One hundred six surveys were returned for a response rate of 42%. The graduation date of all subjects in the sample was unknown, but 211 subjects had graduation dates between 1932 and 2003. The wide age range of subjects in the sample is a potential limitation of the study as the generational influence of self-perceptions and completion of the survey are unknown.

The study adapted a survey used by Park and Dyer (2003), which consisted of the vital demographic characteristics and organizational participation variables. Additional items were added to meet the study's objectives. The survey included 30 questions regarding student leadership positions within the

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CAES, on campus, and in the community. The survey also questioned alumni about their high school extracurricular participation and leadership roles, agricultural education enrollment, FFA participation and leadership, and 4-H leadership.

An expert panel of four teacher educators and five doctoral students evaluated the instrument for content and face validity. The instrument was field tested for validity with a class of 15 undergraduate students who did not currently hold leadership positions. The instrument underwent minor revisions due to recommendations made by the expert panel and after field-testing. Because all of the questions on the survey involved questions for which respondents had “an accurate, ready-made answer” (Dillman, 2000, p. 37); and the questions did not elicit demands for considerable time, thought, nor variation, the items posed no considerable reliability risks (Dillman).

To control for non-response error, researchers compared early to late responders (Ary, Jacobs, and Razavieh, 2002) using an independent samples t-test. Research has shown that late responders are often similar to early responders (Goldhor, 1974; Krushat and Molnar, 1993). Whether participants participated in leadership organizations outside of the college of agriculture ($p < 0.05$) and whether students were an officer in 4-H or not ($p < 0.05$) were two key variables that were significantly different when comparing early to late respondents. Readers should use their own judgment regarding the usefulness of findings related to these two variables.

Results

Leadership Experiences

Objective one sought to describe the leadership experiences of undergraduate positional leaders at a land grant university. Several collegiate organizations were most often cited as providing leadership experiences for student leaders (see Table 1). While all students cannot be involved in everything, Table 1 provides a general description of the collegiate leadership organizations providing experiences for students. The organizations with the greatest level of participation by the sample were AGHON (60.4%), AG Hill Council (58.5%), Alpha Zeta (55.7%), Brass Gavel (34.0%), and Block and Bridle (32.1%). These organizations were followed by 4-H and FFA.

Several high school organizations were most often cited as providing leadership experiences for student leaders prior to their enrollment in college. As shown in Table 2, the top five were 4-H (74%), FFA (68%), Other (64%), Athletics (48%), and Student Council (40%). Respondents who were involved in 4-H averaged 6.09 years of membership prior to college enrollment with 58% of those involved serving as an officer in the club. A majority of those who served as a 4-H officer served at least at the county level. Respondents who were involved in FFA averaged 3.91 years of membership and participated in an average of 2.76 Leadership Development Events (LDE) prior

Table 1. Participation in collegiate organizations* (n = 106)

Collegiate Organizations	Yes		No	
	f	Percent	f	Percent
AGHON	42	39.6%	64	60.4%
AG Hill Council			62	58.5%
Alpha Zeta			59	55.7%
Brass Gavel			36	34.0%
Block and Bridle			34	32.1%
Collegiate 4-H			28	26.7%
Collegiate FFA			21	19.8%
CAES Ambassadors			17	16.0%
Ag. & Environmental Economics Club			15	14.2%
Cattlemen's Association			13	12.3%
American Society of Agricultural Engineers			12	11.3%
Alpha Gamma Rho			10	9.4%
Agronomy / Soils Club			9	8.5%
Poultry Science			9	8.5%
Agricultural Communicators of Tomorrow			7	6.6%
Horticulture	98	93.3%	7	6.7%
Sigma Alpha			7	6.6%
Dairy Science			6	5.7%
Alpha Tau Alpha			5	4.7%
Pre-Vet	99	95.5%	5	4.8%
Rodeo	102	97.1%	3	2.9%
AAE Graduate Club			2	1.9%
Biological Engineering			2	1.7%
Equestrian	104	99.0%	1	1.0%
Food Science			1	0.9%
Turf Club			1	0.9%
Entomology	106	100%	0	0.0%
Landscape	105	100%	0	0.0%
MANNRRS	106	100%	0	0.0%

Table 2. Participation in high school activities (n = 105)

High School Activities	%
4-H	74
FFA	68
Other	64
Athletics	48
Student Council	40
Class Officer	39
Academic Contests	26
Foreign Language	11
Debate	09
Science Club	09
Intramurals	03
SADD	01

to college enrollment. Of those involved 70% served as an officer in the organization. A majority of those who served as an FFA officer served at least at the district/regional level.

Comparison of Collegiate Leadership Experiences Based on Pre-collegiate 4H/FFA Participation

Objective two sought to compare collegiate leadership experiences based on pre-collegiate 4-H and FFA experience. On average, 4-H and FFA members held more than two offices and participated in more than four organizations. As noted in Table 3, Former 4-H members participated in 4.63 organizations per person and held an average of 2.48 leadership positions per person. This compares with non-4-H members with 2.00 leadership positions and 3.48 organizations per person. Former FFA members held an average of 2.05 leadership positions per person, and they participated in an average of 4.33 organizations per person. This compares to non-FFA members with 1.74 leadership positions and 3.74 organizations per person. Former 4-H and FFA members were also more likely to be involved in an organization outside of CAES than were non-members.

Perceived Experiences of Greatest Impact

Objective three sought to identify experiences participants believed had the greatest impact on their leadership development. As seen in Table 4, respon-

dents felt that participation in student organizations at the University of Georgia had the greatest effect (M = 4.23, SD = 0.88) on their development as a leader. Participation in community organizations (M = 3.11, SD = 1.21) and enrollment in high school agricultural education (M = 3.08, SD = 1.52) had the least effect on leadership development, although they both had an average rating that would classify them as moderately effective. A summated rating scale was used to answer the question, "To what do you attribute your leadership development?"

Leadership Self-Perception

Objective four sought to describe participants' self-perceptions of specific leadership skills they possessed. Participants ranked themselves highest in honesty (M = 4.81, SD = 0.46), integrity (M = 4.78, SD = 0.50), and responsibility (M = 4.62, SD = 0.49). There was a noticeable drop in self-perception of the remaining skills. The lowest perceived skill was creativity (M = 3.61, SD = 0.90). In addition, the variable years of participation in 4-H was positively related to goal setting (r = .27) and honesty (r = .26).

Table 3. Collegiate leadership experiences based on pre-collegiate 4-H and FFA experience

Pre-Collegiate Participation	Member of Collegiate Organization	Leadership Positions Held	Member of an Organization Outside of CAES	Number of Outside Organizations and Honors	
4-H	Yes	4.63*	2.48	0.69*	2.04
	No	3.48*	2.00	0.41*	1.35
FFA	Yes	4.33	2.05	0.68	2.09
	No	3.74	1.74	0.59	1.67

Note. *p < .05.

Table 4. Effects on leadership development (n = 106)

Participation or Enrollment in:	M	SD
Student Organizations at University of Georgia	4.23	0.88
High School Activities	3.89	0.87
Church Activities	3.76	1.07
Classes at University of Georgia	3.68	0.98
4-H Activities	3.62	1.57
Other High School Organizations	3.37	0.97
FFA Activities	3.32	1.60
Community Organizations	3.11	1.21
High School Agricultural Education	3.08	1.52

Note: 1 = no effect, 2 = little effect, 3 = moderately effective, 4 = highly effective, 5 = very highly effective

Table 5. Self-perception of leadership skills (n = 106)

Trait	M	SD
Honesty	4.81	0.46
Integrity	4.78	0.50
Responsibility	4.62	0.49
Teamwork	4.28	0.68
Communication	4.21	0.69
Social Skills	4.17	0.75
Goal Setting	4.14	0.76
Organization	4.14	0.77
Decisiveness	4.08	0.69
Conflict Resolution	3.94	0.77
Creativity	3.61	0.90

Note. Respondents rated their ability in each of the above leadership skills as: 1=no ability, 2=low ability, 3=average ability, 4=above average ability, 5=high ability

Discussion

The results of this study would indicate that collegiate clubs and organizations are influential in terms of developing leadership and should be supported. These leadership organizations can be associated with a student's major, but some of the most effective leadership development opportunities seem to be with interdisciplinary organizations. Respondents participated in 26 different collegiate clubs/organizations within the CAES, ranging from major/academic clubs to service and honorary organizations. AGHON, AG Hill Council, and Alpha Zeta had the most participation. These clubs, as well as the next five organizations with the highest respondent participation, were non-major/academic clubs/organizations. The next highest-ranking club, Agricultural and Environmental Economics Club, was major/academic specific.

Pre-collegiate leadership experiences are also important in leadership development. The most often

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participated in high school activities were 4-H and FFA. Seventy-four percent of respondents participated in 4-H, while 68% participated in FFA. Of the respondents who participated in 4-H, 58% served as an officer in the organization. Of the respondents who participated in FFA, 70% served as an officer in the organization. 4-H and FFA should be viewed as important recruiting partners for colleges of agriculture. Students from these organizations have begun the development of leadership.

Based on pre-collegiate 4-H and FFA experience, former 4-H and FFA members participated in more than four organizations per person while in college. Former 4-H and FFA members were also more likely to serve in leadership positions in collegiate organizations, as well as be involved in more organizations outside of the CAES. This may reinforce the 4-H and FFA organizations' emphasis on leaders who are active not only in their organization, but also in the community.

Respondents felt that involvement in student organizations in college and high school were the most influential factors in their development of leadership skills. Students should continue to participate in leadership development opportunities at the secondary and post-secondary levels, and educators at both levels should continue to support them. Participants felt very confident in their leadership abilities, particularly the leadership skills of honesty, integrity, responsibility, teamwork, and communication. This emphasizes the suggestion of leadership development through the culmination of many organizational experiences and influences of diverse activities to form perceptions of leadership (Bennis, 1989; Kouzes and Posner, 2002).

While high school agricultural education classes had the least effect on the overall leadership development of the respondents, FFA and 4-H members appear to demonstrate greater leadership potential than their collegiate peers who did not participate in these organizations. They participated in more collegiate organizations and were more often leaders in those organizations than their peers. The FFA and 4-H are valuable to the CAES because they prepare future leaders for roles in collegiate student organizations. Additionally, involvement in college organizations provides important opportunities, contributes to the entire collegiate experience, and develops leadership skills in students which carry over into their careers after graduation.

Alumni participating in the study rated themselves as having above average ability in each of the leadership skills on the scale. However, decision-making, conflict resolution, and creativity were the lowest self-perceived skills of CAES alumni. Perhaps collegiate student organizations or curriculum revisions should investigate development activities to address the conflict resolution, decision-making, and creativity competencies. The relationship between leadership skills and pre-collegiate experiences such

as 4-H, FFA, or possibly even non-curricular activities should be further investigated.

Summary

Alumni perceived that collegiate leadership organizations had the greatest impact on their leadership development, and they believed that honesty, integrity, and responsibility were the most important leadership traits they had developed. FFA and 4-H contribute to furthering the undergraduate leadership experiences of students in agricultural colleges. Former 4-H and FFA members were more likely to be members of college of agriculture organizations, more likely to be officers in collegiate organizations, and more likely to participate, lead, and receive honors in organizations outside of the college of agriculture.

This study should be replicated both regionally and nationally to determine the generalizability of these findings. Are student leaders in colleges of agriculture most often former 4-H and FFA members in other states? Do former 4-H and FFA members participate in more organizations and lead more than non-4-H and FFA members in other institutions? Does 4-H and FFA develop students who are more likely to become involved in organizations outside the college of agriculture? If these findings are similar at other land-grant universities, then recruiters in colleges of agriculture may choose to focus their recruitment efforts on highly involved 4-H and FFA members. Positive involvement across campus and in the community, and student leadership could serve as justification for their focused recruitment efforts.

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