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A Multi-Institutional Examination of the Relationships Between High School Activity Involvement and Leadership Characteristics

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Developing leaders is vital to the future of our nation. As institutions of higher education address the need for leadership through courses and experiences, there is a need to recognize and acknowledge the potential impact of high school activity participation on leadership development. This descriptive-correlational study surveyed first-time college students about their former participation in high school activities. The objective was to determine the relationship between student activity participation and leadership characteristics. Results of this study revealed that incoming college students (n = 388) participated more in community service and athletics than any other activities during their high school experience. Students rated themselves highest in the leadership constructs of Integrity and Intelligence, and lowest in regard to Leadership Efficacy and Charisma. Leadership Efficacy, Sociability and Charisma constructs exhibited the strongest positive relationship with high school activity participation. However, the strength of the relationships and the corresponding effect sizes were small. Based on the findings, high school teachers, advisors, mentors and coaches should be encouraged to actively and purposefully facilitate the development of leadership characteristics through the programs and activities they supervise. Further research is warranted to provide additional insight into the potential relationship between student activity participation and the development of leadership characteristics.

Keywords: leadership characteristics; leadership development; extracurricular activities; agricultural education

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Leadership continues to be a focal point in the media over the past several years, and it is often framed in the context of politics, education, and the economy. Leadership authors have suggested that the world faces daunting problems which require strong leadership to guide society toward a better future (Kouzes & Posner, 2007). Rapid changes occurring throughout the world contribute to the need for new leadership approaches (Komives, Lucas, & McMahon, 2007). The need for leadership, now and in the future, is viewed as a clarion call to action in order to prepare future generations of leaders.

Higher education has been entrusted to play a key role in developing quality leaders for the global society (Astin, Astin, & Associates, 2000). Numerous higher education institutions are attempting to address this need by providing leadership activities, courses, and programs to students (Riggio, Ciulla, & Sorenson, 2003; Schwartz, Axtman, & Freeman, 1998). Departments of Agricultural Education across the country have been active participants in providing leadership instruction at the university level for several years (Fritz et al., 2003; Simonsen & Birkenholz, 2010). Leadership courses and programs are uniquely designed to meet the needs of their students and society (Bumgardt, Greenleaf, Brungardt, & Arensdorf, 2006). The number of students who have enrolled in leadership courses taught by agricultural education faculty is not well documented. However, it is clear that agricultural education plays a key role in educating students about leadership in many land grant universities.

Literature encompasses a myriad of research pertaining to leadership development among college students (Komives et al., 2007). Much of that literature has been focused on leadership development programs which support the claim that leadership development is a desired outcome of a college education (Roberts, 2007). One factor that has been overlooked in previous research involving college students is pre-college leadership activities and experiences (Komives & Johnson, 2009). Student activity participation and the level of engagement in activities during high school may be related to the leadership knowledge and skills of students as they begin college. The more that faculty and staff at the college level know about the leadership development experiences of beginning students, the better they can serve student developmental needs to meet the demand for leadership in society.

Theoretical Foundation

This study was grounded in Astin's (1984) Theory of Involvement, which covers student academic and social interaction. Astin theorized that the quality and quantity of student involvement in academic and social interactions influenced student learning and development. Astin further suggested that to improve learning students must be actively engaged in their environment. Initially, Astin developed the theory to provide a practical basis for describing the "empirical knowledge about environmental influences on student development" (Astin, 1984, p. 518). Astin's Theory of Involvement offers a foundational basis for the potential benefits of pre-college student participation in leadership development activities.

In contrast with other theories related to student development, the theory of involvement emphasizes "active participation of the student in the learning process" (Astin, 1999, p. 522). Astin's theory encourages educators to shift the focus from what they (teachers or administrators) do to what the students do (student-centered focus). Coinciding with a shift in focus was a shift in monetary investments and program development focused on students. Astin summarized his theory of involvement by saying: "…student learning and development will not be impressive if educators focus most of their attention on course content, teaching techniques, laboratories, books, and other resources" (Astin, 1999, p. 522).

While Astin focused on student involvement, early leadership philosophies were based upon a belief that leaders possessed personal characteristics or genetic traits that were perceived as prerequisites to leadership ability (Komives et al., 2007). Over time, ancestry and genetic predisposition leadership theories were abandoned in favor of behavioral and situational

contingency theories (Chemers, 1995). More recently, philosophical leadership paradigms based on transformational, servant, authentic, and relational theories have emerged (Komives et al., 2007). A major paradigm shift occurred during the transition in which leadership knowledge and skills were not viewed simply as inherited traits but as knowledge and skills that could be learned as well as taught (Eich, 2008; Dubrin, 2001; Komives et al., 2007; Yukl, 2006). Therefore, a foundational principle for this study was the belief that the potential for leadership exists within every student (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001).

Leadership is a complex and multidimensional social construct that has been one of the most widely studied phenomena in the social sciences (Antonakis, Cianciolo, & Sternberg, 2004; Northouse, 2012). Numerous studies have been conducted in an attempt to identify traits and characteristics that differentiated leaders from non-leaders (Kirkpatrick & Locke, 1991; Northouse, 2012; Stogdill, 1974). In 1974, Stogdill identified an extensive list of traits and skills viewed as essential to effective leadership. He identified traits such as dependability, adaptability, assertiveness and persistence and skills such as clever, creative and organized (Stogdill, 1974). Northouse (2012) acknowledged that research has produced an extensive list of leadership traits and characteristics, which he synthesized into six characteristics as keys to effective leadership (in no particular order of importance). These characteristics are: intelligence, confidence, charisma, determination, sociability, and integrity.

Intelligence is one characteristic determined to be a key component to leadership ability. Northouse (2012) stated that, "Intelligence includes having good language skills, perceptual skills, and reasoning ability . . ." (p. 28). Although an individual's intelligence quotient is hard to alter, it is possible for the individual to be informed and aware of happenings around them. A second characteristic displayed by effective leaders is confidence. "Confident leaders feel a sense of certainty and believe that they are doing the right thing" (Northouse, 2012, p. 28). This positive feeling contributes to the ability to succeed. A third characteristic described by Northouse was charisma. Charisma has been described as a special personality characteristic, magnetic charm, or appeal that allows the leader to influence others (Northouse, 2012). Another leadership characteristic was determination which includes the ability to focus one's attention on tasks at hand. Northouse (2012) wrote that, "Determination is the decision to get the job done; it includes characteristics such as initiative, persistence, and drive" (p. 30). The final two characteristics associated with effective leaders are sociability and integrity. Words used to describe leaders who exhibit sociability include: friendly, outgoing, courteous, tactful, and diplomatic (Northouse, 2012). The characteristic of sociability contributes to developing positive social relationships between everyone involved. Integrity encompasses qualities of honesty and trustworthiness (Northouse, 2012). When those qualities are demonstrated, the capacity for leadership increases, and loyalty is built between individuals.

In addition to the previously mentioned characteristics, a leader must also be able to produce results, influence action, facilitate change and build others. Therefore, characteristics of leadership efficacy and decision-making efficacy are viewed as components of effective leadership. Leadership efficacy refers to the belief that an individual possesses the skills and abilities needed to lead (Hannah, Avolio, Luthans, & Harms, 2008). These perspectives clearly align with Bandura's (1986) definition of self-efficacy regarding "people's judgements of their capabilites to organize and execute courses of action required to attain designated types of performances" (p. 391). Therefore, efficacious individuals tend to work harder, persist longer, and participate more readily. Decision-making efficacy refers to the leader's ability to determine and communicate decisions. The decision-making process is much larger than simply making a decision. Decision making in the context of leadership includes the design, regulation, and selection of social systems to aid in making a decision (Vroom & Yetton, 1973). As a potential change agent, the ability to facilitate the decision-making process and implement action is an important function of effective leadership.

Student leadership development is often associated with activity participation and the extent of student engagement. Eccles and Barber (1999) examined extracurricular activity involvement among high school students in order to identify a potential link between involvement and positive or negative development. Their research revealed several positive benefits including reduced dropout rate, decreased substance abuse, and increased development of self-concept, school engagement, and educational aspirations. In 1997, Mahoney and Cairns examined high school student participation in extracurricular activities and also noted that activities were related to a lower chance of becoming a high school dropout. Furthermore, Lamborn, Brown, Mounts, and Steinberg (1992) examined the relationship between school-related clubs and nonathletic activities and found that both were positively related to the likelihood of attending college full-time at age 21 and were positive predictors of grade point average. When looking at broader measures of student engagement, Lamborn et al. (1992) noted a pronounced advantage for students in, "leadership activities and clubs or interest groups" (p. 169) as compared to those simply involved in sports. Involvement in youth programs and a sense of heightened responsibility has also been investigated and there appears to be a link (Wood, Larson, & Brown, 2009). The overriding majority of agricultural education scholars have concluded that high school experiences are important in leadership development and posited that 4-H and FFA youth programs foster the development of future leaders (Allen, Ricketts, & Priest, 2007). Collectively, these findings support the assumption that activity involvement during high school is related to student leadership development.

Purpose and Objectives

The purpose of this study was to describe student activity involvement during high school among first-time college students in colleges of agriculture at seven institutions across the United States. The seven institutions were chosen based on the willingness of both the agricultural education faculty and the associate dean to support institutional participation in the study. Three institutions were located in the West, two in the Midwest, one in the East, and one in the South. This study also sought to determine if there was a relationship between the scope of student activity participation during high school and their self-perceived leadership characteristics.

The following research objectives were developed to guide this study:

1. Describe the level of participation in activities during high school as reported by first-time college students.
2. Describe first-time college students' self-perceptions of leadership characteristics.
3. Determine the relationship between high school activity involvement levels and summated leadership characteristic scores of first-time college students.

Methods

This research was a descriptive-correlational study utilizing survey methodology. Survey methodology is used to summarize characteristics or measure attitudes and opinions of subjects about the phenomenon of interest (Ary, Jacobs, Razavieh, & Sorensen, 2006). Data collected via survey methodology were analyzed to describe past high school activity participation among first-time college students, their self-perceived leadership characteristics, and to investigate relationships between student activity participation and their leadership characteristics.

First-time students in colleges of agriculture at the University of Missouri, Oregon State University, University of Arizona, The Ohio State University, The Pennsylvania State University, University of Idaho, and University of Kentucky comprised the population frame. First-time college student was a common status designation in higher education for beginning students. The subjects were students attending college at each respective campus for the first-time and were not

considered transfer students based on their accumulated credit hours. The designation was used to ensure a common population frame among institutions. The population frame for each respective institution was obtained from the academic programs office in the college of agriculture at each institution. A census was conducted, based on the composite population frame (N = 2,489).

Data were collected using the Individual Leadership Factors Inventory (ILFI) questionnaire. This researcher-designed questionnaire was based on eight leadership characteristics. Six characteristics were identified by Northouse (2012) and included: intelligence, confidence, charisma, determination, sociability, and integrity. Two additional characteristics were developed by the researchers and labeled as: leadership efficacy and decision making efficacy. An initial draft of the questionnaire was reviewed by a panel of experts to assess face and content validity. The experts consisted of faculty from seven agricultural education departments, located at land grant universities throughout the United States. As a result of the expert panel review, changes were made in item wording and sequence. The revised questionnaire was pilot tested at three land grant universities using subjects enrolled in undergraduate leadership courses. The ILFI questionnaire contained 48 Likert-type statements (six items pertaining to each of the eight leadership characteristics). Cronbach alpha reliability coefficients were computed on pilot test data as follows: Intelligence (.70), Confidence (.73), Charisma (.83), Determination (.68), Sociability (.80), Integrity (.87), Leadership Efficacy (.84) and Decision Making Efficacy (.74). The reliability coefficients were near or above the alpha level of 0.70 which was the standard established *a priori* to determine reliability. Therefore, the reliability of this study's data collection instrument was deemed acceptable (Nunnally & Bernstein, 1994). The questionnaire also asked respondents to report their level of participation in activities during high school and demographic information.

Upon approval from the offices of responsible research, the questionnaire was administered online via SurveyMonkey™. Survey administration protocol followed the Dillman Tailored Design Method (Dillman, Smyth, & Christian, 2009) and included a prenotification email, initial invitation, reminder invitation, follow-up reminder, and a final notification. Of the 2,489 first-time college students in colleges of agriculture at the seven institutions, the researchers received 388 usable responses for a 16% response rate. The response rate is within the expectations of research reported in common disciplines (Fox, Robinson, & Boardley, 1998; Hikmet & Chen, 2003) and exhibits a continued decline in general response rate (Cook, Heath, & Thompson, 2000; Sheehan, 2006). Non-response error was addressed through a comparison of a group of early respondents to a group of late respondents on mean scores of the eight leadership constructs (Miller & Smith, 1983). No significant differences were found. Early respondents were those who responded within one week of receipt of the instrument and late respondents were those who responded after the second reminder. The authors sought to improve response rate by tailoring each email message to be authored by the agricultural education research director or associate dean at each respective university. IRB protocol prevented the researchers from offering individual incentives for completion of the instrument. Based on the nature of the study, and given the low response rate, the researchers caution against generalization of the results beyond the respondents.

Data were analyzed utilizing descriptive statistics and the Pearson product-moment correlation coefficient. Frequencies and percentages were calculated to describe high school activity participation. Additionally, a high school activity participation score was computed by summing the number of years of participation in all activities for each student (range: 0- 44). For example, if a student participated in community service for two years, athletics for four years, and Girl Scouts for two years, the individual's high school participation score was computed as eight. Likewise, an officer or team/group leader score was calculated by summing the 'Yes' responses for each participant regarding their service as an officer or team/group leader for each activity

(range: 0-11). For example, if an individual served as an officer or team/group leader in National Honor Society and 4-H, the individual's officer or team/group leader score was computed as two.

Summated rating scores were computed for each respondent on the eight leadership constructs to describe their perceptions of leadership characteristics. Data for the eight leadership constructs were reported as means and standard deviations. Relationships were assessed by computing a Pearson product-moment correlation coefficient between high school participation scores and the eight leadership construct mean scores. In addition, officer or team/group leader scores were correlated with each of the eight leadership construct scores. Correlations were described using Davis' (1971) adjectives regarding the magnitude of the relationship between the variables. In addition, Cohen's (1990) descriptors were used to describe the effect size of each relationship.

Findings

Student participants in the study were first-time students enrolled in the college of agriculture at the University of Missouri, Oregon State University, University of Arizona, The Ohio State University, The Pennsylvania State University, University of Idaho, and University of Kentucky. Most participants were approximately 19 years of age (M=18.9, SD = 1.6), female (71.4%), and white or Caucasian (83.2%). Respondents were predominantly from rural (44.6%) or suburban (37.9%) areas, with a self-reported high school grade point average of 3.67 on a 4.0 scale.

The first research objective was to describe the level of activity participation during high school of first-time college students. Students were asked to report the number of years they had been involved in each of 11 high school activities. Responses to the number of years of involvement in each activity are reported in Table 1. Respondents reported the highest level of participation in community service activities and athletics. In addition, most respondents reported four years of participation in those activities. Also, for those respondents who reported participation in FFA and 4-H, most reported four years of participation in those activities as well.

Respondents were also asked to report if they had served as an officer or team/group leader for each activity. Overall involvement in each activity is reported in Table 2. High school participation scores were computed by summing the number of years of participation for each student in all activities (range: 0- 44). The mean high school participation score among respondents was 13.7 (SD = 6.9). Similarly, an officer or team/group leader score was calculated by adding the 'Yes' responses for each participant regarding their potential service as an officer or team/group leader for each activity (range: 0-11). The mean officer or team/group leader score among respondents was 2.4 (SD = 1.7). The high school participation score and officer or team/group leader score provide a composite measure of student activity participation during high school and reveals the extent to which students had served in leadership roles in those activities.

Table 1

Years of Participation in Individual High School Activities among First-Time College Students (n=388)

	Years of Participation				
	0	1	2	3	4
Activity	*n (%)*	*n (%)*	*n (%)*	*n (%)*	*n (%)*
Community service	108 (27.8)	34 (8.8)	35 (9.0)	25 (6.4)	186 (47.9)
Athletics	112 (28.9)	21 (5.4)	27 (7.0)	38 (9.8)	190 (49.0)
National Honor Society	175 (45.1)	27 (7.0)	113 (29.1)	47 (12.1)	26 (6.7)
Religious youth group	226 (58.2)	14 (3.6)	28 (7.2)	22 (5.7)	98 (25.3)
Drama/Theater	271 (69.8)	40 (10.3)	26 (6.7)	14 (3.6)	37 (9.5)
FFA	275 (70.9)	9 (2.3)	8 (2.1)	11 (2.8)	85 (21.9)
4-H	276 (71.1)	7 (1.8)	8 (2.1)	4 (1.0)	93 (24.0)
Student council	283 (72.9)	16 (4.1)	29 (7.5)	22 (5.7)	38 (9.8)
Boy Scouts/Girl Scouts	313 (80.7)	21 (5.4)	19 (4.9)	4 (1.0)	31 (8.0)
Speech	328 (84.5)	25 (6.4)	11 (2.8)	4 (1.0)	20 (5.2)
Other[a]	243 (62.6)	21 (5.4)	20 (5.2)	20 (5.2)	84 (21.6)

Note. [a]Other activities included: art club, astronomy club, business academy, class office, color guard, creative writing club, crew, dance team, environmental club, FBLA, FCCLA, foreign language club, Future Teachers of America, history club, journalism, math club, music, pony club, and S.A.D.D.

Table 2

Participation in High School Activities among First-Time College Students (n = 388)

	Participation		Served as Officer or Team/Group Leader	
Activity	*n*	(%)	*n*	(%)
Community service	280	(72.2)	143	(36.9)
Athletics	276	(71.1)	170	(43.8)
National Honor Society	213	(54.9)	69	(17.8)
Religious youth group	162	(41.8)	55	(14.2)
Drama/Theater	117	(30.1)	39	(10.1)
FFA	113	(29.1)	93	(24.0)
4-H	112	(28.9)	97	(25.0)
Student Council	105	(27.1)	74	(19.1)
Boy Scouts/Girl Scouts	75	(19.3)	28	(7.2)
Speech	60	(15.5)	18	(4.6)
Other[a]	145	(37.4)	105	(27.1)

Note. [a]Other activities included: art club, astronomy club, business academy, class office, color guard, creative writing club, crew, dance team, environmental club, FBLA, FCCLA, foreign language club, Future Teachers of America, history club, journalism, math club, music, pony club, and S.A.D.D.

Through the second objective, the researchers sought to describe first-time college student self-perceptions of their leadership characteristics. Specifically, six leadership constructs identified by Northouse (2012) as well as two additional constructs of leadership efficacy and decision-making efficacy, were examined to describe student leadership characteristics. Table 3 presents means and standard deviations for each leadership construct. The characteristic that produced the highest mean score was Integrity (M = 5.4, SD = 0.5), while the two characteristics tied for the lowest scores were Leadership Efficacy and Charisma with means of 4.8 (SD = 0.7).

Table 3

Self-perceptions of Leadership Characteristics among First-Time College Students (n = 388)

Leadership construct	*M*	*SD*
Integrity	5.4	0.5
Intelligence	5.3	0.5
Sociability	5.1	0.6
Determination	5.1	0.5
Decision Making Efficacy	5.1	0.5
Confidence	5.0	0.6
Leadership Efficacy	4.8	0.7
Charisma	4.8	0.7

Note. Measured on a scale from 1 (strongly disagree) to 6 (strongly agree).

The third objective was to determine the relationship between high school activity involvement and self-perceived leadership characteristics of first time college students. Pearson product-moment correlation coefficients were computed between the activity participation scores and the eight leadership construct mean scores. Correlation coefficients are reported in Table 4.

To further describe the relationships, Pearson product-moment correlation coefficients were computed between high school participation scores and officer or team/group leader scores in relation to each of the eight leadership constructs. Correlation coefficients (r) for each coefficient and effect size descriptors are reported in Table 5.

Table 4

Correlation Coefficients for Student Activity Participation during High School and Leadership Constructs of First-Time College Students (n=388)

	Leadership construct							
High school student activity participation	Charisma	Confidence	Decision-making efficacy	Determination	Integrity	Intelligence	Leadership efficacy	Sociability
Community service	.16*	.13*	.12*	.14*	.09	.15*	.19*	.21*
Athletics	.05	-.02	-.04	.00	-.07	-.07	.01	.02
National Honor Society	.08	.00	-.02	.01	.11*	.03	.04	.07
Religious youth group	-.01	.00	-.03	.00	.02	-.04	.02	.10
Drama/Theater	-.01	.02	.06	.02	.01	.00	.04	.15*
FFA	.06	.02	-.05	.01	.03	-.03	.07	.01
4-H	.05	.01	-.01	.03	.03	-.01	.08	.00
Student Council	.10	.04	.03	.06	.07	.05	.12*	.10
Boy Scouts/Girl Scouts	-.07	.02	.00	-.03	.00	.04	-.05	-.06
Speech	.16*	.15*	.09	.09	.07	.11*	.17*	.13*
Other[a]	.01	-.02	.00	.06	.06	.09	-.02	.05

Note. [a]Other activities included: art club, astronomy club, business academy, class office, color guard, creative writing club, crew, dance team, environmental club, FBLA, FCCLA, foreign language club, Future Teachers of America, history club, journalism, math club, music, pony club, and S.A.D.D.
*p = <.05, two-tailed

Table 5

Relationships between Student Activity Participation during High School and Leadership Constructs among First-Time College Students (n = 388)

	Leadership construct							
	Charisma	Confidence	Decision-making efficacy	Determination	Integrity	Intelligence	Leadership efficacy	Sociability
High school activity involvement	*R*							
High school participation	.16*[a]	.07	.06	.09	.10	.08	.19*[a]	.18*[a]
Officer/group leader	.15*[a]	.07	.05	.11*[a]	.07	.08	.17*[a]	.14*[a]

Note. [a] Small effect size.
*p = <.05, two-tailed

The largest correlation among the composite high school participation score and the eight leadership constructs was for Leadership Efficacy (r = .19), followed by Sociability (r = .18) and Charisma (r = .16). These three relationships were statistically significant and were described as a low relationship using Davis' (1971) convention for describing the magnitude of the relationship. Furthermore, all three correlations yielded a small effect size (Cohen, 1990).

With regard to relationships among the officer or team/group leader score and the eight leadership constructs, lower correlation coefficients resulted. Although statistically significant coefficients were computed for Leadership Efficacy (r = .17), Charisma (r = .15), Sociability (r = .14), and Determination (r = .11); all were described as low (Davis, 1971) and yielded a small effect size (Cohen, 1990).

Conclusions and Recommendations

This research sought to describe the potential relationship between student participation in activities during high school and the self-perceived leadership characteristics of first time college students. This study was also conducted to determine if there was a relationship between student activity participation and identified leadership constructs. Respondents were from seven land grant university campuses and represented a broad range of majors within their respective colleges of agriculture. Furthermore, the majority of respondents were female, Caucasian, 18-19 years of age, from rural communities with less than 10,000 population, and planned to pursue a career in agriculture, food, and/or natural resources after college graduation.

Community Service during high school produced the highest participation rate among first-time college student respondents, followed by athletics. The ILFI questionnaire stipulated that involvement in Community Service was independent from school-based community service.

This distinction led the researchers to conclude that most respondents were active in their respective community and deemed service to be important. Possessing a sense of 'community' is viewed positively in society as the data revealed that respondents were actively involved in some form of community service. The level of student participation in both Community Service and Athletics, based on the percentage of respondents who served in a leadership role, suggests that students were also actively engaged in both activities.

Along with a better understanding of student activity participation, this research sought to describe the self-perceived leadership characteristics of first-time college students. Eight leadership constructs were measured using a self-reported Likert-type rating scale (1 = Strongly Disagree to 6 = Strongly Agree). The leadership construct of Integrity produced the highest overall mean score. Charisma and Leadership Efficacy produced the lowest overall mean scores. However, all eight leadership construct means were within one standard deviation of the Agree response point on the scale. This finding provides the basis for concluding that the student respondents perceive they possess characteristics associated with leadership.

Examining each leadership construct independently may allow faculty to identify areas to address in an undergraduate program. As collegiate leadership programs continue to evolve, additional opportunities should be provided to further develop Leadership Efficacy and Charisma constructs within students. Both Leadership Efficacy and Charisma may be enhanced through participation in college leadership development opportunities. Educators seeking to improve charisma should consider encouraging students to further serve in leadership roles within college organizations and potentially consider additional coursework in interpersonal communication. Students who are low in Leadership Efficacy may also improve their sense of efficacy through exposure to both mastery and vicarious experiences as suggested by Bandura (1997). Bandura noted that mastery experiences were the most influential source to enhance self-efficacy. He noted that it was possible to increase self-efficacy by, "organizing mastery experiences in ways that are especially conducive to the acquisition of generative skills" (p. 80). Thus, leadership self-efficacy of students may be increased if they are provided with opportunities to observe peers and mentors engaged in successful leadership experiences (Bandura, 1986).

Similarly, with regard to involvement as an officer or team/group leader in high school activities, the highest relationships were associated with the Leadership Efficacy and Charisma constructs. Therefore, students who served as officers or team/group leaders during their participation in activities during high school were more likely to have higher perceptions of their Leadership Efficacy and Charisma. This study appears to provide support for Astin's (1984) contention that actively engaged students benefit in terms of their growth and development. Although the actual correlation coefficients were low, the researchers noted a relatively consistent pattern among the relationships, especially in the context of the lower Leadership Efficacy and Charisma mean scores.

Based upon the findings and conclusions from this study, there may be opportunities for high school teachers, advisors, mentors, and coaches of activities to enhance student perceptions of their leadership abilities. Secondary educators who supervise student activities should be challenged to more explicitly and intentionally seek to engage and enhance student participation and potential leadership development. Although many activities may not be focused on leadership development, there may be opportunities to address the development of student leadership development as a secondary objective. Support for the concept of purposeful interaction has been provided by Astin (1999). He believed that it was not merely the quantity of time spent, but rather the quality of time. Educators and activity sponsors who are purposeful in their interaction with students and recognize the need for leadership development, have a unique opportunity to develop leadership qualities among their student participants.

As noted earlier, Astin (1977, 1982) also related activity participation to improvement in student persistence and dropout rates. Student persistence in higher education continues to be an area of concern, and further studies should examine both the high school and college leadership

activities of students (Astin, 1999). Identifying activities that support and enhance student leadership development and involvement will enable colleges to build upon a leadership foundation, which may coincidently produce better leaders and contribute to enhanced student retention.

The third research objective sought to examine the relationship between specific high school activities and leadership constructs. According to Davis (1971), all associations were either negligible or low and each of the statistically significant correlations yielded a small effect size (Cohen, 1990). The two activities that revealed the most statistically significant relationships to the leadership constructs were Community Service and Speech. Students should continue to be encouraged to be active in activities and possibly take a more focused approach toward specifically developing their leadership potential. Specific to FFA and 4-H the correlations were all considered negligible. Further research should examine the ways that both FFA and 4-H, two traditionally strong agricultural leadership development activities as described in previous studies, potentially foster specific leadership constructs.

This research provides insight regarding student activity and organization participation during high school and the relationship between participation and eight leadership constructs among first-time college students. The researchers recommend further research to more thoroughly and precisely assess student activity participation prior to attending college. Additional research is also needed to examine factors associated with student activity and organization participation that may be positively and negatively related to leadership development. Finally, research should be conducted to determine if certain activities are more influential than others, explore if collegiate student activities have similar effects, and continue investigating relationships between student activity participation and leadership constructs among other populations.

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