

The Effect of Undergraduate Extracurricular Involvement and Leadership Activities on Community Values of the Social Change Model

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Abstract

The purpose of this study was to explore the effects that undergraduate extracurricular involvement and leadership activities had on the community values component of the Social Change Model of Leadership Development. Senior students in the College of Agriculture and Life Sciences at Iowa State University completed an online questionnaire about their extracurricular experiences. The Socially Responsible Leadership Scale (SRLS-R2) citizenship scale was used to assess leadership community values. Students who participated in more extracurricular clubs and organizations, students who reported spending more time per week involved in clubs and organizations, students who served as an officer, and females scored significantly higher on the SRLS-R2 citizenship scale. Students who participated in college-wide organizations, Greek organizations, university-wide organizations, and social/recreational organizations scored significantly higher on the SRLS-R2 citizenship scale than students who did not. Participation in major-related organizations, competitive/team based organizations, faith-based organizations, or community-based organizations did not provide significant results on the SRLS-R2 citizenship scale. These findings have implications for leadership development for all students, not just those in positional leadership roles. It is recommended that clubs and organizations revisit their purpose and associated activities to ensure they are aligned to meet espoused student leadership outcomes. It may be that not all clubs are focused on community values.

Introduction

Ewing et al., (2009) suggested a new generation of leaders is needed to address changing issues facing local communities, build local partnerships, and assume leadership positions. Universities are uniquely positioned to facilitate leadership development and consider leadership development as part of their mission (Astin and Astin, 2000; Boatman, 1999). One way to conceptualize leadership development outcomes

is by using the Social Change Model (SCM) developed by the Higher Education Research Institute of UCLA in 1996. The SCM was created specifically for use with college students and is widely cited in higher education literature (Haber and Komives, 2009). In addition, the SCM views leadership as a process, not a position, and encourages leadership development in all participants, including those who hold formal leadership positions and those who don't.

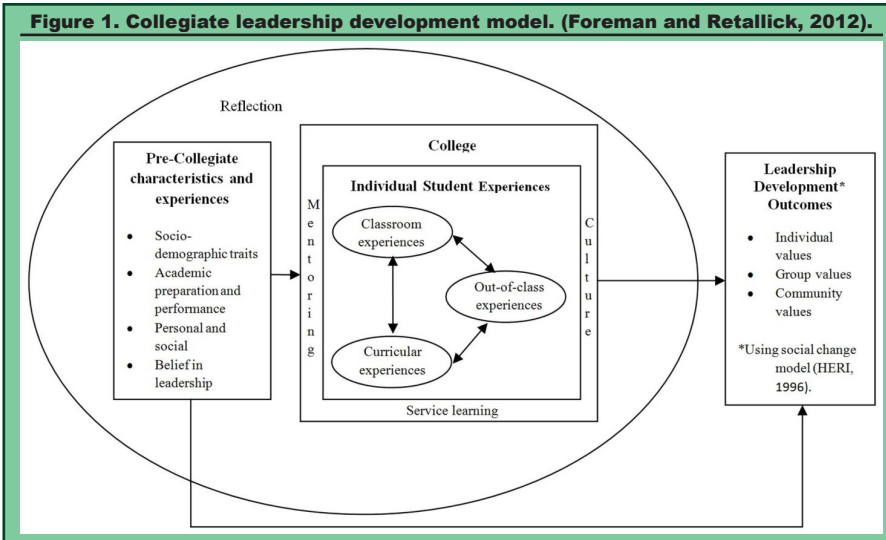
Community Values is one of the three components of the SCM and examines the importance of people coming together in their community to address their shared needs and problems (Komives et al., 2009). Community values defines leadership as active community participation as a result of a sense of responsibility to the communities in which people live. According to the SCM, the skills and knowledge that make community involvement more effective are: understanding social capital; awareness of the issues and the community history; empowerment; empathy; multicultural citizenship; an understanding of community development; and the ability to build coalitions (Komives and Wagner, 2009).

The collegiate leadership development model (Foreman and Retallick, 2012) provides a conceptual framework and consists of precollegiate characteristics and experiences, collegiate experiences, and leadership outcomes (Figure 1). The components of this model pertinent to this study include student demographic characteristics and out-of-class experiences related to extracurricular membership, amount of time spent on club activities, level of participation, and type of club or organization. The community values leadership development was the outcome variable for this study.

The precollegiate characteristic associated with this study was socio-demographic traits. Dugan and Komives (2007) found that demographics were a significant predictor of college outcomes. However, only 1–2% of the college outcomes studied was explained by demographics. Gender has been linked to leadership development (Dugan and Komives, 2007; Josselson,

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Figure 1. Collegiate leadership development model. (Foreman and Retallick, 2012).



1987; Kezar, 2002; Kezar and Moriarty, 2000). Dugan and Komives (2007) concluded that college women scored higher than males across all eight constructs of the Social Change model. Research indicated some influence of gender role norms in leadership. Females tended to agree more strongly with humanistic leadership abilities (Schumacher and Swan, 1993) than males and males perceived themselves as more dictatorial (Schumacher and Swan, 1993) and hierarchical (Fisher et al., 2010) than females. However, other findings (Burton, 1981; Pugh, 2000) suggested that neither gender nor ethnicity influenced extracurricular participation.

The college experience construct, specifically extracurricular experiences, was the focus of the out-of-class experiences portion of this study. Experiential learning is instrumental in the development of leadership skills (Layfield et al., 2000) and a variety of out-of-classroom experiences provide concrete experiences to apply leadership theories (Kouzes and Posner, 2007). Layfield et al., (2000) suggested that without meaningful opportunities to practice leading a group, students would not gain skills.

Research about different categories (i.e., major-related, college-level, university level, competitive/team-based, Greek, social/recreational, faith-based, and community-based) of clubs or organizations is sparse in the literature. Moore et al., (2008) studied the relationship between university-wide student organizations and college-level student organizations and concluded that more students participated in college-level student organizations. However, students perceived university-wide organizations as more effective than college-level student organizations at developing leadership awareness, behaviors, skills, and abilities. The researchers suggested that this may be attributed to additional commitment required for university-wide organizations as well as more focused, long-term leadership education.

Research has supported Astin's (1999) theory of involvement, which suggests that both the amount of time involved in an activity and the quality of the student experience are important. The frequency and quality of students' participation in activities was associated with

high educational aspirations, enhanced self-confidence, and increased interpersonal and leadership skills (Pascarella and Terrenzini, 1991). In addition, Rubin et al., (2002) used an extracurricular index that represented the number of clubs students were involved with, officer status, and hours spent and concluded that it was a significant predictor of interpersonal skills.

One aspect of involvement in extracurricular organizations that affects both the quality and quantity of involvement in extracurricular organizations is serving in a positional leadership role. Researchers have found serving as a club officer increased leadership development (Ewing et al., 2009), increased

decision-making (Rubin et al., 2002), and resulted in higher levels of developing purpose, educational involvement, life management, and cultural participation (Cooper, et al., 1994). Positional leaders also scored higher on the Socially Responsible Leadership Scale (SRLS-R2) group values scale and the SRLS-R2 community values scale (Dugan, 2006).

Not all research supported the idea that serving as an officer of a club or organization was beneficial for students. Rubin, et al., (2002) found no difference on a student's initiative based on whether or not they served as a club officer. Foubert and Grainger (2006) reported similar findings when they examined the psychosocial development of students and found no increased benefit for students who served as officers.

Literature links undergraduate extracurricular participation and leadership outcomes (Birkenholz and Schumacher, 1994; Ewing et al., 2009; Layfield et al., 2000). However, there is a lack of literature that has defined leadership as active community participation. This research is needed in order to intentionally create leadership development experiences in colleges that are most likely to provide communities with the future generations of leaders. Therefore, there is a need to gain a better understanding of the extracurricular experiences and identify which of those experiences result in higher levels of community values of leadership.

The purpose of this study was to explore the effects that undergraduate extracurricular involvement and leadership activities had on the community values of College of Agriculture and Life Sciences seniors. Five research questions guided this study.

1. Does membership in extracurricular clubs and organizations influence community values of leadership development?
2. Does the amount of time a student spends participating in a club or organization influence community values of leadership development?
3. Does the level of participation in extracurricular clubs and organizations influence community values of leadership development?

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4. Does gender influence community values of leadership development?
5. Does the category of the club or organization influence leadership development?

Methods

This study was a part of a larger study designed to examine the role of undergraduate extracurricular participation in leadership development. Full-time, undergraduate college students classified as seniors in the College of Agriculture and Life Sciences at Iowa State University (N = 969) were surveyed.

The researchers designed an on-line questionnaire to answer the research questions. The instrument reflected the conceptual framework (Figure 1) and contained three sections: precollegiate characteristics and experiences, collegiate experiences, and SRLS-R2 citizenship scale. Precollegiate and collegiate characteristics and experiences were assessed using both university records (i.e., demographics) and the web-based survey instrument (i.e., collegiate extracurricular activities). Community Values of the Social Change Model was the dependent variable for this study and was measured using the citizenship scale of the Socially Responsible Leadership Scale (SRLS-R2) (National Clearinghouse for Leadership Programs, 2009).

The Multi-Institutional Study of Leadership (National Clearinghouse for Leadership Programs, 2009) has established the reliability of the SRLS-R2 citizenship scale, which was 0.77. Using Cronbach's alpha, the reliability coefficient for the SRLS-R2 citizenship scale for this study was 0.90.

Content validity for this study was established using a panel of experts including faculty and graduate students. This group used their expertise in undergraduate outcomes, extracurricular experiences, and leadership development to review and compare the purpose and research questions for the study to the content of the instrument. The panel's recommendations and suggestions were incorporated into the instrument.

A group of students (n = 24) similar to those in the sample population field tested the instrument. Using a focus group format to obtain feedback, students made suggestions regarding content, question format, and data collection procedures. Those recommendations were made to improve the face validity of the instrument.

Qualtrics (Qualtrics Labs, Inc., Provo, UT), a web-based survey program, was used to collect data because of the program's capabilities to improve the flow of the instrument. Qualtrics uses skip/display logic to customize the questions a subject receives. On the basis of initial responses, subjects were asked additional questions related to their experiences. Skip/display logic was used to customize the questions each subject received. Subjects were asked to indicate whether or not they participated in extracurricular organizations and based on the responses to these questions, subjects were asked additional questions to learn more about their experiences.

A five-step data collection process was developed based on the recommendations of Dillman (2007) and the students who served on the expert panel. Subjects were contacted via e-mail to participate in the study and were sent up to four e-mail reminders inviting them to participate in the study if they had not yet completed the questionnaire. Each correspondence contained a link to the survey instrument, the purpose of the study, and information regarding general consent. All students classified as seniors (N=969) were invited to participate in the study and their contact information was provided by the Office of the Registrar. The data collection process resulted in 270 responses (27%), 199 of which were fully completed for a usable response rate of 20.5%.

Non-response error was controlled by comparing early and late respondents, as suggested by (Lidner et al., 2001). Differences in extracurricular involvement did not exist between early and late respondents.

University records and student responses were matched using student email addresses. All identifying data were removed prior to data analysis to ensure confidentiality. Data were analyzed using SPSS (Version 17). The data analysis methods for each research question follows. The Iowa State University Institutional Review Board approved the study protocol and all participants were provided written informed consent prior to participation in the study.

Data analysis procedures were developed for each of the research questions. To analyze research question one, which focused on membership, a t-test was computed using the dichotomous variable of club membership as an independent variable and the SRLS-R2 citizenship scale as the dependent variable to determine if club membership influenced community values. The number of clubs and organizations a student participated in was calculated based on the clubs and organizations in which a student indicated they participated. This variable was recoded into four nearly-equal categories (i.e., 0 clubs, 1-2 clubs, 3-4 clubs, and 5-11 clubs). An ANOVA using the number of extracurricular clubs and organizations as the independent variable and leadership development (i.e., SRLS-R2 citizenship scale) as the dependent variable to determine if the number of extracurricular clubs in which a student participates influences community values.

Research question two focused on the amount of time spent on extracurricular activities. Average hours per week spent in extracurricular clubs and organizations was a categorical variable with 20 possible answers. This variable was recoded into four nearly-equal categories (i.e., 0-1 hours, 2-3 hours, 4-6 hours, and 7 or more hours). An ANOVA was computed using the recoded average hours per week as the independent variable and the SRLS-R2 citizenship scale as the dependent variable to determine if there was a significant relationship between the number of hours per week a student is involved in extracurricular activities and community values. To address research question three and determine levels of participation, a

dichotomous variable (i.e., serving as an officer) was used as an independent variable and the SRLS-R2 was used as the dependent variable to determine if serving as an officer has an influence on community values.

Gender was the focus of research question four and a t-test was computed using gender as the dependent variable and the citizenship scale as the independent variable to determine if there were mean differences on citizenship based on gender. Finally, club categories were analyzed to address research question five. Students indicated whether or not they participated in 48 university or college recognized clubs or organizations. These were organized into eight different categories (i.e., major-related, college-level, university-level, competitive/team-based, Greek, social/recreational, faith-based, and community-based). A t-test was computed using membership in each category to determine if each category of club or organization influenced community values.

Results and Discussion

Ninety-one (45.7%) males and 108 (54.3%) females participated in this study. All were full-time students and were classified as seniors; 151 subjects (75.9%) entered the university directly from high school, and 48 subjects (24.1%) entered as transfer students. Ninety-six percent of respondents indicated they were involved in an extracurricular activity, including 21% in the Greek system, 95% in extracurricular clubs and organizations, and 29% in competitive teams.

Membership

The results of a t-test indicate that students who were members of clubs ($M = 33.22, SD = 3.71$) scored significantly higher on the citizenship scale than those that were not ($M = 31.73, SD = 4.29, t(75.83) = -2.15, p = 0.035$). The number of extracurricular clubs and organizations that students reported being involved in ranged from 0 to 11 ($M = 3.41, SD = 2.44$) extracurricular clubs and organizations. Females ($M = 3.91, SD = 2.29$) were involved in significantly more clubs than males ($M = 2.82, SD = 2.48, t(197) = -3.198, p = 0.002$). An ANOVA using the number of extracurricular clubs and organizations as the independent variable and leadership development (SRLS-R2 – citizenship) as the dependent variable indicated a significant relationship between the number of clubs a student participates in and leadership development ($F(3, 179) = 10.55, p 0.000$) (Table 1).

Because the ANOVA provided significant results, post hoc testing was conducted to compare and contrast mean differences between groups. A Tukey post hoc test indicated that significant differences as occurred between the lowest two levels of involvement (i.e., 0 clubs and 1–2 clubs) and the highest two groups (i.e., 3–4 clubs and 5–11 clubs) (Table 2). Significant differences were found between respondents involved in two or fewer clubs than those who were involved in three or more clubs.

Amount of time spent

The average amount of time students spent in extracurricular clubs and organizations ranged from 0 to 20 or more hours per week ($M = 5.33$). Gender differences were not found ($p < 0.575$). An ANOVA, using the recoded average hours per week as the independent variable indicated a significant relationship between the amount of hours per week a student is involved in extracurricular activities and community values ($F, (3, 179) = 6.53, p = 0.000$) (Table 3).

Because the ANOVA provided significant results, post hoc testing was conducted to compare and contrast mean differences between groups. A Tukey post hoc test indicated that significant differences occurred between the lowest two levels of involvement (i.e., 0–1 hours per week and 2–3 hours per week) and the highest two groups (i.e., 5–6 hours per week and 7 or more hours per week) (Table 4). Significant differences were found between respondents who spent the least amount of time (i.e., 0–1 hours per week) and respondents who spent four or more hours per week. In addition, respondents who spent seven or more hours per week scored higher on the citizenship scale than those that spent two to three hours per week.

Level of participation

One hundred forty-two students (71.4%) reported serving as an officer; 57 students (28.6%) did not. Pearson Chi Square indicated no gender

Table 1. Analysis of Variance for the number of extracurricular clubs and organizations and Leadership Development (SRS-R2).

Dependent variable	Groups	SS	df	MS	F	p	Cohen's f
Citizenship scale	Between	420.16	3	140.05	10.55	0.000*	0.42
	Within	2376.24	179	13.28			
	Total	2796.40	182				

Note. * $p \leq 0.05$

Table 2. Tukey HSD Post Hoc Results for Number of Clubs and Leadership Development (SRLS-R2)

Test	(I) Number of Clubs	(J) Number of Clubs	Mean differences (I-J)	SE	p	Cohen's d
Citizenship Scale	0	1-2	-0.51	1.02	0.959	0.12
		3-4	-3.03	0.99	0.015*	0.73
		5-11	-3.88	1.01	0.001*	0.94
	1-2	0	0.51	1.02	0.959	0.12
		3-4	-2.52	0.69	0.002*	0.71
		5-11	-3.37	0.71	0.000*	0.94
	3-4	0	3.03	0.99	0.015*	0.73
		1-2	2.52	0.69	0.002*	0.71
		5-11	-0.85	0.68	0.597	0.25
	5-11	0	3.88	1.01	0.001*	0.94
		1-2	3.37	0.71	0.000*	0.94
		3-4	0.85	0.68	0.597	0.25

Note. * $p \leq 0.05$

Table 3. Analysis of Variance for the amount of time spent in clubs and organizations and Leadership Development (SRS-R2).

Dependent variable	Groups	SS	df	MS	F	p	Cohen's f
Citizenship scale	Between	275.79	3	91.93	6.528	0.000*	0.33
	Within	2520.61	179	14.08			
	Total	2796.40	182				

Note. * $p \leq 0.05$

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differences between students who served as an officer and those who did not ($\chi^2(1, N = 199) = 1.076, p = 0.30$). Students who served as officers ($M = 7.02, SD = 4.69$) spent significantly more hours per week involved in extracurricular clubs and organizations than those who didn't serve as officers ($M = 3.55, SD = 4.39, t(196.96) = 5.40, p = 0.000$). The results of a t -test show that students who served as an officer ($M = 33.80, SD = 3.42$) in a club or organization scored higher on the SRLS-R2 scale ($M = 31.80, SD = 4.16, t(170.58) = -3.54, p = 0.001$) (Table 5).

One explanation of these differences might be the relationship between the mindset and training that officers receive and the definition of community values. Students in positional leadership roles are more likely to understand the group issues and community history, feel empowered to make changes, have a concern or empathy for group members, and the ability to build teams or coalitions. On the basis of these findings, increasing the amount of leadership training and opportunities for all students in extracurricular clubs and organizations is recommended.

A second explanation for these differences might be the increased amount of time officers spent participating in clubs and organizations than those who did not serve as officers. Shertzer and Schuh (2004) suggested that students who hold leadership positions are often given more leadership development opportunities when compared to those members who do not hold leadership positions. Therefore, the increased skills often attributed to serving as an officer may actually be associated with the additional training that officers receive as well as the increased time associated with serving as an officer.

Gender

The results of a t -test indicate that females ($M = 104, SD = 3.77$) scored significantly higher on the citizenship scale than males ($M = 79, SD = 3.91, t(164.89) = -1.79, p = 0.002$) (Table 6), however spent no more time involved per week and were no more likely to serve as an officer. Similar to the findings of previous research (Dugan and Komives, 2007), females scored higher on the citizenship scale. Additional research should be conducted to learn more gender-related differences in regards to extracurricular participation and leadership development to help inform practice.

Category of club

The results of t -test showed that college level organizations, university level organizations, Greek organizations, and social/recreational organizations significantly influenced community values. The following had large effect sizes: Greek (i.e., $Cohen's d = 1.13$), college level (i.e., $Cohen's d = 0.75$), and university level (i.e., $Cohen's d = 0.61$). While more students participated in major-related clubs and organizations than any other category of organization, those did not influence community values. Competitive/team-based, faith-based, and

Table 4. Tukey HSD Post Hoc Results for Amount of Time Spent and Leadership Development (SRLS-R2)

Test	(I) Amount of Time	(J) Amount of Time	Mean differences (I-J)	SE	<i>p</i>	Cohen's <i>d</i>
Citizenship Scale Tukey HSD	0-1	2-3	-0.44	0.81	0.948	0.11
		4-6	-2.28	0.79	0.022*	0.61
		7 or more	-2.96	0.79	0.001*	0.76
	2-3	0-1	0.44	0.81	0.948	0.11
		4-6	-1.84	0.78	0.089	0.51
		7 or more	-2.52	0.78	0.008*	0.67
	4-6	0-1	2.28	0.79	0.022*	0.61
		2-3	1.84	0.78	0.089	0.51
		7 or more	-0.68	0.76	0.809	0.20
7 or more	0-1	2.96	0.79	0.001*	0.76	
	2-3	2.52	0.78	0.008*	0.67	
		3-4	0.68	0.76	0.809	0.20

Note. * $p \leq 0.05$

Table 5. t Test for serving as an Officer and Leadership Development (SRLS-R2)

Dependent variable	<i>t</i>	<i>df</i>	Sig	Mean difference	SE difference	Cohen's <i>d</i>
Citizenship scale	-3.54	170.58	0.001*	-2.00	0.57	0.54

Note. * $p \leq 0.05$

Table 6. t Test for Gender and Leadership Development (SRLS-R2)

Dependent variable	<i>t</i>	<i>df</i>	Sig	Mean difference	SE difference	Cohen's <i>d</i>
Citizenship scale	-3.11	164.88	0.002*	-1.78	0.57	0.48

Note. * $p \leq 0.05$

Table 7. t Test for Categories of Organizations and Leadership Development (SRLS-R2)

Independent variable	<i>t</i>	<i>df</i>	Sig	Mean difference	SE difference	Cohen's <i>d</i>
Major-related	-1.47	64.93	0.146	-1.16	0.79	0.36
College-level	-4.47	142.74	0.000*	-2.52	0.56	0.75
University-level	-3.68	143.76	0.000*	-2.11	0.57	0.61
Greek	-4.93	76.39	0.000*	-2.91	0.59	1.13
Social/recreational	-2.81	178.33	0.005*	-1.58	0.56	0.42
Competitive/teams	-0.08	47.49	0.934	-0.06	0.73	0.02
Faith-based	-0.89	56.56	0.379	-0.60	0.68	0.24
Community-based	-1.37	22.92	0.185	-1.38	1.01	0.57

Note. * $p \leq 0.05$

community-based were also not significant (Table 7). One possible explanation for these discrepancies is the differences in the mission statements of these organizations. Many of those organizations are more intentional in developing community values because of the focus on volunteerism and philanthropy. It is recommended that major-related organizations determine the extent to which community values is a part of their mission and implement additional strategies to develop these leadership outcomes. It may be that these organizations have a different focus and leadership development centered on community values isn't part of the organizational purpose. Additional research is recommended to identify specific characteristics or activities of extracurricular involvement that are most likely to increase leadership outcomes to assist educators as they work with student leaders to create meaningful experiences.

Summary

Reforms in higher education have increased the attention on student learning outcomes as well as the need for graduates to have the skills necessary to be contributing members of their community. The results

of this study indicate that involvement in extracurricular activities (i.e., membership, the number of clubs in which a student is involved, amount of time spent, and serving as an officer) had a strong relationship with community values. Therefore, as institutions create action plans to reach leadership outcomes related to community values, they should include the role of extracurricular activities in those plans as well as in assessment strategies.

A limitation of this study was that data were collected at one College of Agriculture and Life Science at a fairly homogeneous institution. In spite of this limitation, the analysis offers insights for other institutions that aspire to increase student leadership outcomes.

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