

Predicting the Individual Values of the Social Change Model of Leadership Development: The Role of College Students' Leadership and Involvement Experiences

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Abstract

This study explored the extent to which co-curricular involvement, holding formal leadership roles, and participating in leadership programs contributed to female and male college students' capacity for socially responsible leadership. It focused specifically on the individual values of the Social Change Model of Leadership Development. An adapted version of Astin's Input-Environment-Outcome Model was the conceptual framework and the Social Change Model individual values including consciousness of self, congruence, and commitment served as the theoretical framework. Data were collected from a random sample of 3,410 undergraduates at one institution through the Multi-Institutional Study of Leadership. Participants completed a web-based survey including the Socially Responsible Leadership Scale-Revised2. Data were analyzed using hierarchical multiple regression to identify the extent to which the environmental variables contributed to outcomes. Involvement in student organizations was the most significant environmental variable and community involvement emerged as significant for women. A discussion of findings and implications is presented.

Introduction and Framework

As is reflected in institutional mission statements, many colleges and universities emphasize outcomes related to student leadership development and reaching higher levels of developmental maturity in the area of leadership skills, knowledge, and competence (Council for the Advancement of Standards in Higher Education, 2006; Roberts & Ullom, 1990). Leadership education has become increasingly more prominent nationally and globally, with many venues to deliver leadership education and training (Huber, 2002). The leadership development of college students has increasingly become a strong focus of student affairs work, and the academic study of leadership has also become more prominent (Komives, Dugan, Owen, Slack, & Wagner, 2006; Roberts, 1997).

There are an infinite number of leadership definitions, and a review of scholarly literature demonstrates that there are a variety of competencies, skills, values, and behaviors identified as key to leadership capacity. One of the key areas of leadership development, particularly found in leadership models developed for college students, is a focus on self. More specifically, models tend to focus on an understanding of oneself, the ability to manage oneself, acting in accordance with one's values, being a person of character, developing a sense of purpose, and demonstrating commitment (Goleman, Boyatzis, & McKee, 2002; Higher Education Research Institute, 1996; Komives, Lucas, & McMahon, 2007; Shankman & Allen, 2008). These areas of development also tend to be identified as the foundational aspects of leadership; a strong sense of self contributes to one's ability to understand others and work with others toward change, which requires more complex developmental capacity (Bennis, 1989; Goleman, et al.; Kegan, 1982; Komives, Owen, Longerbeam, Mainella, & Osteen, 2005). The Council for the Advancement of Standards in Higher Education's (CAS) Standards for Student Leadership Programs includes the category of *personal development* to capture some of these leadership areas focused on self (CAS, 2006); these competencies are identified by CAS as an important component college student leadership programs.

College Student Leadership Development

Through examining literature and research on college students' development of leadership outcomes, three environmental variables consistently emerged as experiences contributing to the development of personal development aspects of leadership (Astin 1993; Cooper, Healy & Simpson, 1994; Dugan 2006b; Kezar & Moriarty, 2000; Pascarella & Terenzini, 2005). These experiences include co-curricular involvement, holding formal leadership roles, and participating in leadership training and education programs. Within the context of this study these terms are defined as:

- **Co-curricular involvement:** A form of involvement that occurs outside of the classroom and contributes to designated learning and developmental outcomes. The term co-curricular has been chosen to reflect a cooperative rather than a supplementary form of activity that includes organized involvement in campus as well as community groups or organizations.
- **Formal leadership role:** A leadership position in a campus or community organization, such as a president, treasurer, co-chair, committee head, or team captain.
- **Leadership training and education program:** “Any program or activity intentionally designed with the purpose of developing or enhancing the leadership skills, knowledge, or abilities of college students” (Haber, 2006, p. 29). These programs can include the components of leadership training, education, and development through such means as seminars and workshops, mentoring, guest speakers, service and volunteer placement, leadership courses, outdoor education, and conferences (Zimmerman-Oster & Burkhardt, 1999).

Co-curricular Involvement and Formal Leadership Roles

Co-curricular involvement was identified in Astin’s (1993) classic longitudinal study as a significant variable for leadership as a personality and self-concept outcome. Of the eight significant involvement measures, five reflect aspects of co-curricular involvement. Student-student interaction, which is often evident in student organizations or other student activities, had the strongest effect on leadership. Student-faculty interaction, although not always characteristic of co-curricular involvement, can exist in organization advising or other out-of-class involvement that includes faculty. Fraternity/sorority membership, intramural sports, and volunteer work each emerged as significant and reflect different types of co-curricular involvement. Additionally, student clubs and organizations, fraternity and sorority membership, and diversity activities, which reflect co-curricular involvement, were significant variables contributing to growth in leadership abilities. Amount of time spent engaging in co-curricular involvement, such as hours spent in student clubs or organizations, was also emphasized as positively contributing to the outcomes.

In a study examining men’s fraternity and student governance involvement, a common theme emerged that these experiences contributed to their leadership skills and development of self (Byer, 1998). These skills included public speaking, effective goal setting, goal accomplishment, goal reassessment, a greater sense of responsibility, time management skills, interpersonal skills, and general leadership skills. In a three-year longitudinal study, Cooper et al. (1994) found similar findings in a study comparing students involved in student organizations to those who were not involved. The study found significant

differences between the two groups. When controlling for input variables, the involved students scored higher on the sub-tasks of developing purpose ($F=36.3$, $p<.001$), lifestyle planning ($F=21.04$, $p<.001$), and life management ($F=17.26$, $p<.001$). These outcomes reflect personal development aspects of leadership.

Cooper et al. (1994) also examined the experience of holding a leadership role by comparing leadership outcomes of those who held positional roles to those who did not hold positional roles. The sub-tasks of developing purpose ($F=25.7$, $p<.001$), lifestyle planning ($F=10.33$, $p<.05$), and life management ($F=10.70$, $p<.01$), which reflect personal development aspects of leadership, emerged as significant with those who held positions scoring significantly higher than those who did not have formal positions. The researchers concluded “leadership roles appear to provide the opportunity to sustain and further develop developmental skills” (p. 101).

Personal development outcomes of leadership were also identified in a qualitative study of 15 female student leaders, each of who were presidents of coed, campus wide student organizations (Romano, 1996). The women noted a number of outcomes as a result of their leadership experiences. Some of these outcomes include developing public speaking, interpersonal communication skills, conflict management skills, increased self-awareness, and increased self-confidence.

Student Leadership Programs

In addition to co-curricular involvement and holding a formal leadership role, literature also focuses on the role of student leadership programs in developing leadership outcomes. Student leadership programs continue to become important elements of institutions. In the early 2000s it was estimated that there were over 800 student leadership programs present on college campuses across the country (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001; DiPaolo, 2002). These programs involve diverse pedagogical approaches to teaching leadership including a broad range of experiential learning opportunities. One study reports the most frequent leadership program activities to be seminars, workshops, mentors, and guest speakers along with service and volunteerism (Zimmerman & Burkhardt, 1999). The recent *Handbook for Student Leadership Programs* addresses an array of pedagogical practices and learning outcomes (Komives, et al., 2006).

Research on 31 leadership programs funded by the W. K. Kellogg Foundation report perceived student leadership learning growth in several areas of personal development: civic, social, and political awareness and efficacy (93% of programs), commitment to service (85% of programs), communication skills (85% of programs), personal and social responsibility (79% of programs), self esteem (74% of programs), vision (57% of programs), and ethics (44% of

programs (Zimmerman & Burkhardt, 1999). Because of the nature of the perceived growth per institution and different forms of assessment utilized to determine this growth, it is hard to draw strong conclusions.

Directly addressing the outcomes of the program and students' identification of their outcomes as a result of participation, DiPaolo (2002) conducted in-depth interviews with six male participants in a five-day leadership education program. The participants identified gaining a strong sense of values and core belief system through the leadership program. Similarly, a study of 12 students who participated in a two-week outdoor leadership and stewardship course resulted in significant findings from a pre- and post-test of speech communication skills and character-building skills (Hobbs & Spencer, 2002).

Comparing Environmental Variables

Examining the influence of multiple environmental variables simultaneously could expand our understanding of how different experiences contribute to different leadership outcomes. There is a lack of research that addresses concurrently the multiple environmental variables of student organization involvement, holding a formal leadership role, and participation in student leadership programs. Cooper et al. (1994) and Astin (1993), highlighted above, studied different experiences but did not examine them concurrently in order to draw comparisons.

Two additional studies examined multiple experiences simultaneously with some experiences emerging as more significant than others. The first study examined the environmental variables of leadership classes, being elected to office, and active participation in student organizations for African American and Caucasian men and women (Kezar & Moriarty, 2000). The significant environmental predictors of leadership ability differed by groups. For Caucasian men the strongest predictor was enrollment in leadership courses ($\beta=.13$), for African American men it was participation in racial or cultural awareness workshops ($\beta=.16$), for Caucasian women it was taking leadership courses ($\beta=.13$), and for African American women it was being elected to student office ($\beta=.17$). Overall, taking leadership courses was the experience that served as a positive predictor of leadership ability for all four groups. Other significant predictors included student organization involvement, intramural sports, volunteer work, ROTC, serving as a Resident Advisor, and membership in a sorority.

A second study examined the influence of the involvement measures of community service, positional leadership roles, student organization membership, and formal leadership programming on outcomes of the Social Change Model of Leadership (Dugan, 2006b; HERI, 1996). Three of the outcome measures reflect

the individual values of the model consciousness of self, congruence, and commitment. For consciousness of self ($t=-2.56$, $p< .05$) and congruence ($t=-2.31$, $p< .05$), community service was a significant variable with those involved in community service scoring significantly higher in both measures than those who did not. For commitment, community service ($t=-2.87$, $p< .05$) and positional leadership roles ($t= -2.11$, $p< .05$) emerged as significant variables. The environmental variables of student organization membership and formal leadership programming did not emerge as significant for these individual values of the model.

Additional research on the influence of multiple college environmental variables can add to a greater understanding of how different experiences contribute to college students' personal development aspects of leadership.

Theoretical Framework

One limitation in the study of college student leadership development is the lack of theoretical framework on how leadership is viewed in most studies. Although there are some studies based on Kouzes and Posner's (2007) *The Leadership Challenge* using the Student Leadership Practices Inventory as a measure (Binard & Brungardt, 1997; Komives, 1994; Posner & Brodsky, 1995), most studies are not based on any leadership theory or framework (Dugan, 2006a).

The Social Change Model (SCM) (HERI, 1996), which was used in Dugan's (2006b) study and serves as the foundation of the Multi-Institutional Study of Leadership (Dugan & Komives, 2007), is a model of leadership development that identifies three groups of leadership values (individual, group, and community/society) with a total of eight leadership values. The three outcomes in the individual level of the model, which are the outcomes explored in this study, are consciousness of self, congruence, and commitment. The outcomes of common purpose, collaboration, and controversy with civility exist at the group level and the outcome of citizenship comprises the community/societal level of the model. The overall goal of the model is the eighth outcome, change. This approach to leadership is a purposeful, collaborative, values-based process that results in positive social change (HERI, 1996). The terms *socially responsible leadership* have been adopted to describe the philosophy of leadership presented by the SCM (Tyree, 1998).

SCM is regarded as the most widely used model of student leadership development in higher education. Indeed, "the social change model of leadership development and seven C's of social change have played a prominent role in shaping the curricula and formats of undergraduate leadership education initiatives in colleges and universities throughout the country" (Kezar, Carducci, & Contreras-McGavin, 2006, p. 142). SCM has been used to frame a variety of

co-curricular student leadership programs and has been used as a framework for leadership courses (Haber, 2006; Martinez, 2006; Seemiller, 2006).

The individual level of the SCM serves as the theoretical frame of this research study. The Socially Responsible Leadership Scale (SRLS) was developed as a way to measure the values and outcomes of the SCM (Tyree, 1997, 2001). This model was chosen due to the context and focus of the research study; the model was created specifically for college students, and it reflects the emerging paradigm of leadership as a relational, change-directed, learned, and transformative process (Rost, 1993). The individual level is explored in order to focus on some of the foundational aspects of leadership development. The individual values of the model tend to be the most developed, resulting in higher means (Ricketts, Bruce, & Ewing, 2008; Dugan, 2006b). Through exploring these values, the researchers attempted to provide insight to what experiences contribute to the development of these foundational values.

There are very few published research studies that use the SCM as a focus or theoretical frame. In addition to Dugan's (2006b) aforementioned study, the SRLS was also used in comparing gender differences in SCM outcomes (Dugan, 2006a) and in a study examining the mean SRLS scores of students in a College of Agricultural Sciences (Ricketts et al., 2008). A revised version of the SRLS, the SRLS-R2, was used in a study exploring socially responsible leadership and spirituality (Gehrke, 2008). Considering the widespread use of the SCM, there is need for additional research on the SCM outcomes.

Purpose

This study sought to address gaps in current literature and add to the research on leadership development by examining experiences that contribute to students' individual dimensions of leadership development. The purpose of this study was to identify the extent to which co-curricular involvement, formal leadership roles, and leadership education and training programs independently and collectively contribute to college students' individual outcomes of socially responsible leadership.

Methods and Procedures

Design

Data for this study were obtained through the Multi-Institutional Study of Leadership (MSL), a quantitative national leadership study sponsored by the National Clearinghouse for Leadership Programs and the University of Maryland.

MSL was a national study with 52 participating institutions. This study uses the data from one participating campus.

This study was designed using Astin's (1991) input-environment-outcome (I-E-O) college impact model. This conceptual framework was chosen because the environmental variables are of the most interest in the study. By controlling for input characteristics, the I-E-O framework helps assess the extent to which the environmental variables, as opposed to input characteristics, contribute to the leadership outcomes. This study included a modified version of the model. Data were collected at one point in time so that participants retrospectively assessed inputs or pre-college variables at the time of this study rather than at a point in time prior to college.

This cross-sectional method varies from the longitudinal model that is characteristic of the I-E-O model. Some research has shown that this "then-post" design of assessment can provide more accurate and significant change over time than a true pre and post-test design wherein there may be a response shift bias in the assessment (Rohs, 2002). Additionally, due to length restrictions, a quasi-pre-test was used; only one question per outcome was included in the pre-test as opposed to the six to nine questions identified per construct. Despite this deviation from the model, the pre-test measures used in the design of this study helped control for input characteristics when assessing the outcomes of the study. The design of the study also differs from the I-E-O model in that it expands the environmental variables to include off-campus experiences, such as involvement in community organizations, rather than just campus-based experiences. This allows for a greater understanding of environmental variables contributing to students' leadership outcomes.

The independent and dependent variables of the study framed in the I-E-O model are presented in Table 1. The variables include a variety of pre-college and college experiences including service, student organization involvement, community involvement, holding leadership roles, and involvement in leadership training and education programs. This last category is broken into three types of programs based on amount of time and intensity – short-term, moderate-term, and long-term experiences. Short-term experiences are individual or one-time leadership lectures, workshops, or conferences; moderate-term experiences are multiple or ongoing trainings, retreats, and workshops or a single leadership course; and, long-term experiences are multi-semester leadership programs, multiple leadership courses, such as through a leadership minor or major, or a leadership living-learning program.

Population and Sample

Participants in the study were undergraduate students at a four-year, public Research I institution in the mid-Atlantic region of the United States. The random sample size for the study was 3,410 students. The total number of usable partial and complete responses in the study was 1,407. This reflected a 41% return rate. After the removal of some cases that were statistical outliers or were classified as *graduate student* or *other* for class standing, 1,206 participants were deemed usable.

Table 1
Input, Environment, and Outcome Measures of the Study

Inputs	Environments	Outcomes
<i>Race/ Ethnicity</i>	<i>Involvement during college</i>	<i>Consciousness of Self</i>
<i>Class Standing</i>	<ul style="list-style-type: none"> • college organization 	<i>Congruence</i>
<i>Pre-college Involvement</i>	<ul style="list-style-type: none"> • community organization • breadth of involvement 	<i>Commitment</i>
<ul style="list-style-type: none"> • student clubs/ groups • varsity sports • community organizations 	<i>Formal Leadership Role during college</i>	
<i>Pre-college Formal Leadership Role</i>	<ul style="list-style-type: none"> • college organization • community organization 	
<ul style="list-style-type: none"> • student clubs/ groups/ sports • community organizations 	<i>Leadership Training & Education during college</i>	
<i>Pre-college Leadership Training</i>	<ul style="list-style-type: none"> • short-term experience • moderate-term experience • long-term experience 	
<ul style="list-style-type: none"> • participation in training 		
<i>SRLS-R2 Quasi-Pretest Measures</i>		
<ul style="list-style-type: none"> • questions that correspond to outcome measures 		

Instrumentation

The instrument used in this study was the MSL instrument, which included the SRLS-R2, demographic and pre-college variables, environmental variables, and the additional outcome variables such as leadership self-efficacy, cognitive development, and diversity appreciation (NCLP, 2006). The SRLS-R2 is a revised version of Tyree's (1998) SRLS, which is a self-reporting instrument that measures the eight constructs of the SCM with 68 items. Each of the three constructs in this study is comprised of six to nine items. Scale reliabilities ranged from 0.78 to 0.81. A description of each variable, a sample item from the scale, number of questions in the scale, and Cronbach Alpha scores of reliability are presented in Table 2.

Data Collection and Analysis

Participants' self-reported data scores were collected between February 17 and March 20, 2006 via a web survey. Participants were contacted via email to participate in the study and they were sent up to three email reminders inviting them to join the study if they had not yet completed it. The email invitations included a link to the web survey and an individual code. When entered into the survey the individual code was separated from the response so no identification could be made to link the responder with that response.

Table 2
SRLS-R2 Sample Questions and Scale Reliabilities

Construct	Description	# of Questions	Sample Question	Cronbach Alpha
Consciousness of Self	Being aware of the beliefs, values, attitudes, and emotions that motivate a person to take action	9	I can describe how I am similar to other people.	0.78
Congruence	Thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others	7	My behaviors are congruent with my beliefs.	0.80
Commitment	Having the energy that motivates an individual to serve and drives the collective effort	6	I hold myself accountable for responsibilities I agree to.	0.81

Note: Descriptions from *Designing an instrument to measure socially responsible leadership using the social change model of leadership development*, by T. M. Tyree, 1998, unpublished doctoral dissertation, University of Maryland, College Park, MD.

Modified hierarchical multiple regression analyses were conducted for each of the three outcome measures for both men and women. Each regression included six to nine blocks of input, environmental, and outcome variables. For the first six blocks in the regression, a number of input variables were entered as the first blocks of the analysis including pre-college involvement and pre-college leadership positions. The input blocks were followed by and the quasi pre-test outcome measure and subsequently the environmental variables of co-curricular

involvement, holding a formal leadership role, and participation in leadership training programs.

After the input variables were entered into the regression analysis, the hierarchical model was modified in that the remaining environmental variables were entered through stepwise regression to explore which of the environmental variables contributed to the most variance in outcome scores. This method was chosen to determine which of the environmental variables were significant for each outcome variable and the extent to which the input and environmental variables contributed to the variance in outcome scores. This allowed for a clearer understanding of the effect of the environmental variables as well as practical implications. Using multiple regression analyses in this study enabled the researchers to determine how much of the variance of the outcome scores are explained by the input and environmental variables for each gender.

Results

A demographic description of the respondents of the study and the demographic characteristics of the random sample are presented in Table 3. In comparing the respondent characteristics to that of the larger sample, women appeared to be slightly over represented. Additionally, seniors and juniors appeared to be over represented while freshmen seemed to be slightly under represented. It is difficult to determine the comparison of the sample and respondents for the racial breakdown because the current study utilized the variable of Multiracial and the institutional data for the sample did not. It does appear that White students are slightly over represented in the respondent group, but it is difficult to make other conclusions because of the different categorization techniques. Bias weights were not calculated for this analysis.

The study examined to what extent co-curricular involvement, holding a formal leadership role, and participating in leadership education and training programs independently and collectively contributed to undergraduate men and women college students' individual outcomes of socially responsible leadership. Findings on the significant environmental variables from each of the three outcomes are presented below. The means and standard deviations of the environmental variables by gender are presented in Table 4, and outcome scores by gender are presented in Table 5.

Table 3
Demographic Characteristics of Respondents

	Respondent Demographics N=1206	Sample Demographics N=3410
Female	686 (56.9%)	1690 (49.6%)
Male	520 (43.1%)	1720 (50.4%)
White/ Caucasian	774 (61.7%)	1972 (57.8%)
Black/ African American	108 (9.0%)	439 (12.9%)
Asian American/ Pacific Islander	168 (13.9%)	477 (14.0%)
Latino/ Hispanic	45 (3.7%)	212 (6.2%)
Multiracial/ Multiethnic	107 (8.9%)	n/a
Other/ Not Reported	34 (2.8%)	300 (8.8%)
American Indian	included in other/ not rep	10 (0.3%)
Freshman	205 (17%)	732 (21.5%)
Sophomore	285 (23.6%)	851 (25.0%)
Junior	355 (29.4%)	863 (25.3%)
Senior	361 (29.9%)	920 (27.0%)
Post Bachelor	not included	44 (1.3%)
Average Age	20.56 (SD=2.74)	

Table 4
Mean and Standard Deviations of Environmental Measures by Gender

	Total		Female	Male
Involvement- Student Organizations^a	3.00 (1.35)		3.09 (1.35)	2.88 (1.34)
Involvement- Community Organizations^a	1.82 (1.20)		1.80 (1.19)	1.85 (1.23)
Breadth of Involvement^b	3.11 (2.60)		3.07 (2.42)	3.15 (2.83)
Leadership Role- Student Organizations^a	1.99 (1.37)		2.00 (1.39)	1.98 (1.34)
Leadership Role- Community Organizations^a	1.51 (1.03)		1.48 (1.00)	1.56 (1.08)
Short-term Leadership Education/ Training^c	1.91 (0.94)		1.93 (0.95)	1.88 (0.93)
Moderate-term Leadership Education/ Training^c	1.60 (0.86)		1.61 (0.87)	1.58 (0.86)
Long-term Leadership Education/ Training^c	1.43 (0.86)		1.43 (0.87)	1.42 (0.85)

a: Scale range is 1-5 (never to much of the time)

b: Total number of different kinds of student groups involved in, ranging from 0-21

c: Scale range is 1-4 (never to many)

Table 5
Mean and Standard Deviations of Outcome Measures by Gender

	Consciousness of Self	Congruence	Commitment
Total	3.91 (0.51)	4.14 (0.46)	4.21 (0.46)
Female	3.93 (0.49)	4.17 (0.43)	4.24 (0.43)
Male	3.89 (0.54)	4.10 (0.50)	4.16 (0.50)

Note: Response choices range from strongly disagree (1) to strongly agree (5)

Consciousness of Self

For the outcome of consciousness of self, multiple regression analysis explained 33.7% of the variance of women's scores and 24.5% of the variance in men's scores (see Table 6). For women, the first six blocks of input variables entered into the regression analysis using hierarchical multiple regression, that emerged as significant ($p < 0.05$) were race, class standing, pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the

consciousness of self pretest measure. The block of pre-college involvement was negatively related to the outcome because each of the variables (student organizations, varsity sports, and community organizations) had negative beta scores. The first six blocks of the regression accounted for 29.7% of the variance for this outcome measure with the pre-test for consciousness of self adding the most variance (19.4%) when it was entered into the regression as the fifth block. The variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p < 0.05$) were in order of amount of additional variance explained (R^2 Change), involvement in student organizations, involvement in community organizations, and holding a leadership role in student organizations. These environmental measures combined explained 4% more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the model.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, pre-college leadership training, and the pre-test for consciousness of self emerged as significant predictors ($p < 0.05$). The block of pre-college involvement was negatively related to the outcome, as each of the variables including student organizations, varsity sports, and community organizations had negative beta scores. Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 23.2%. The pre-test for consciousness of self added the most variance (9.8%) when it was entered into the regression as the fifth block. The only environmental variable that emerged as significant through stepwise multiple regression was involvement in student organizations which added 1.3% to the total R-square value. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the model.

Table 6
Predictors of Consciousness of Self for Women and Men

	Women			Men		
	B	β	Sig	B	β	Sig
<i>1. Race</i>						
White/ Caucasian	0.084	0.080		0.151	0.135	
Black/ African American	0.050	0.037		0.115	0.057	
Asian American/ Pacific Islander	0.109	-0.078		0.087	0.055	
Latino/ Hispanic	0.127	0.053		0.118	0.037	
Multiracial/ Multiethnic	0.001	0.000		0.202	0.109	
(Referent Category: Other/ Not Reported)						
	<i>R² Change</i>	0.023			0.012	
	<i>New R²</i>	0.023			0.012	
	<i>F Change</i>	3.229	**		1.217	
<i>2. Class Standing</i>						
Class Standing	0.030	0.066	*	0.080	0.157	***
	<i>R² Change</i>	0.090			0.022	
	<i>New R²</i>	0.032			0.034	
	<i>F Change</i>	6.003	*		11.564	***
<i>3. Pre-College Involvement</i>						
Student Organization	0.009	-0.018		0.005	-0.010	
Varsity Sports	0.002	-0.006		0.019	-0.044	
Community Organizations	0.005	-0.011		0.011	-0.021	
	<i>R² Change</i>	0.034			0.056	
	<i>New R²</i>	0.066			0.090	
	<i>F Change</i>	8.158	***		10.476	***
<i>4. Pre-College Formal Leadership Role</i>						
Student Organization	0.016	0.766		0.090	0.176	**
Community Organization	0.009	-0.389		0.002	-0.003	
	<i>R² Change</i>	0.014			0.032	
	<i>New R²</i>	0.080			0.122	
	<i>F Change</i>	5.245	**		9.238	***
<i>5. Pre-College Leadership Training</i>						
Pre-College Leadership Training	0.066	0.131	***	0.041	0.070	
	<i>R² Change</i>	0.087			0.012	
	<i>New R²</i>	0.103			0.134	
	<i>F Change</i>	16.886	***		6.940	**

Table 6 (continued)

6. SRLS Pretest Measure

Pretest for Consciousness of Self	0.194	0.465	***	0.166	0.340	***
<i>R² Change</i>		0.194			0.098	
<i>New R²</i>		0.297			0.232	
<i>F Change</i>		185.410	***		64.586	***

7. Student Organization Involvement

Involvement in Student Organizations	0.042	0.114	**	0.051	0.128	**
<i>R² Change</i>		0.028			0.013	
<i>New R²</i>		0.325			0.245	
<i>F Change</i>		27.654	***		8.800	**

8. Community Organization Involvement

Involvement in Community Organizations	0.042	0.102	**			
<i>R² Change</i>		0.008				
<i>New R²</i>		0.333				
<i>F Change</i>		7.897	**			

9. Student Organization Leadership Role

Leadership Role- Student Organization	0.031	0.088	*			
<i>R² Change</i>		0.004				
<i>New R²</i>		0.337				
<i>F Change</i>		3.949	*			

Total R²		0.337			0.245	
Total F		21.179	***		11.688	***

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

Women:

- Total Breadth of activities
- Leadership Role- Community Organization
- Short Term Training & Education
- Moderate Term Training & Education
- Long Term Training & Education

Men:

- Involvement Community Organizations
- Total Breadth of activities
- Leadership Role- Student Organization
- Leadership Role- Community Organization
- Short Term Training & Education
- Moderate Term Training & Education
- Long Term Training & Education

Congruence

For the outcome of congruence, multiple regression analysis explained 24.8% of the variance of women’s scores and 19.3% of the variance in men’s scores (see Table 7). For women, the first six blocks of input variables, which were entered into the regression analysis using hierarchical multiple regression, that emerged as

significant ($p < 0.05$) for women were race, class standing, pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the congruence pretest measure. The blocks of pre-college involvement and pre-college formal leadership role did not significantly contribute to the outcome variable. The first six blocks of the regression accounted for 22.5% of the variance for this outcome measure, with the pre-test for congruence adding the most variance (11.3%) when it was entered into the regression as the fifth block. The only variable entered into the regression after block six through stepwise multiple regression that emerged as significant ($p < 0.05$) was involvement in student organizations which added 2.3% to the total variance explained by the analysis. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the model.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, and the pretest for congruence emerged as significant predictors ($p < 0.05$). The block of pre-college involvement contained variables that demonstrated both positive (varsity sports) and negative (student organization and community organization involvement) relationships with the outcome measure. The pre-test for congruence added the most variance (11.0%) when it was entered into the regression as the fifth block. None of the environmental variables were found to be significant and therefore were rejected from the regression analysis. The total R-square value for the regression was 19.3%.

Table 7
Predictors of Congruence for Women and Men

	Women			Men		
	B	β	Sig	B	β	Sig
<i>1. Race</i>						
White/ Caucasian	-0.089	-0.102		-0.017	-0.016	
Black/ African American	-0.061	-0.043		-0.082	-0.044	
Asian American/ Pacific Islander	-0.188	-0.156		0.029	0.020	
Latino/ Hispanic	0.024	0.012		-0.157	-0.053	
Multiracial/ Multiethnic	-0.066	-0.043		0.006	0.003	
(Referent Category: Other/ Not Reported)						
	<i>R² Change</i>	0.020			0.001	
	<i>New R²</i>	0.020			0.001	
	<i>F Change</i>	2.786	*		0.143	
<i>2. Class Standing</i>						
Class Standing	0.038	0.097	**	0.072	0.155	***
	<i>R² Change</i>	0.005			0.019	
	<i>New R²</i>	0.025			0.020	
	<i>F Change</i>	3.424			9.754	**
<i>3. Pre-College Involvement</i>						
Student Organization	-0.017	-0.037		-0.007	-0.013	
Varsity Sports	-0.003	-0.008		0.007	0.017	
Community Organizations	0.039	0.098	*	-0.009	-0.019	
	<i>R² Change</i>	0.048			0.030	
	<i>New R²</i>	0.073			0.050	
	<i>F Change</i>	11.660	***		5.357	***
<i>4. Pre-College Formal Leadership Role</i>						
Student Organization	0.024	0.061		0.065	0.138	*
Community Organization	-0.012	-0.027		0.001	0.002	
	<i>R² Change</i>	0.010			0.027	
	<i>New R²</i>	0.083			0.077	
	<i>F Change</i>	3.829	*		7.360	***
<i>5. Pre-College Leadership Training</i>						
Pre-College Leadership Training	0.044	0.100	*	0.024	0.045	
	<i>R² Change</i>	0.009			0.005	
	<i>New R²</i>	0.092			0.082	
	<i>F Change</i>	6.467	*		2.884	

Table 7 (continued)

6. SRLS Pretest Measure

Pretest for Consciousness of Self	0.199	0.366	***	0.207	0.349	***
<i>R² Change</i>		0.113			0.110	
<i>New R²</i>		0.225			0.193	
<i>F Change</i>		114.957	***		68.856	***

7. Student Organization Involvement

Involvement in Student Organizations	0.052	0.163	***			
<i>R² Change</i>		0.023				
<i>New R²</i>		0.248				
<i>F Change</i>		20.765	***			

Total R²		0.248			0.193	
Total F		15.808	***		9.245	***

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

Women:

- Involvement Community Organizations
- Total Breadth of activities
- Leadership Role- Student Organization
- Leadership Role- Community Organization
- Short Term Training & Education
- Moderate Term Training & Education
- Long Term Training & Education

Men:

- Involvement Student Organization
- Involvement Community Organizations
- Total Breadth of activities
- Leadership Role- Student Organization
- Leadership Role- Community Organization
- Short Term Training & Education
- Moderate Term Training & Education
- Long Term Training & Education

Commitment

For the outcome of commitment, multiple regression analysis explained 25.4% of the variance of women’s scores and 29.9% of the variance in men’s scores (see Table 8). For women, the first six blocks of input variables that emerged as significant ($p < 0.05$) for women were pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the commitment pre-test measure. Although its block was not significant, the variable of class standing emerged as significant. The first six blocks of the regression accounted for 22.4% of the variance for this outcome measure with the pre-test for commitment adding the most variance (12.9%) when it was entered into the regression as the fifth block. The variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p < 0.05$) were, in order of amount of additional variance explained (R^2 Change), involvement in student

organizations, and holding a leadership role in community organizations. These environmental measures combined explained 2.45% more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and therefore rejected from the model.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, pre-college leadership training, and the pre-test for commitment emerged as significant predictors ($p < 0.05$). Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 28.3%. The pre-test for commitment added the most variance (18.3%) when it was entered into the regression as the fifth block. The environmental variables that emerged as significant through stepwise multiple regression and accounting for 1.6% additional variance were involvement in student organizations and breadth of student involvement, with breadth having a negative relationship with the outcome of commitment. Breadth refers to the number of types of student organizations the students has belonged to during college. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the model.

The six regression analyses explained at most 33.7% of the variance in outcome scores and low as 19.3% of total variance. Much of the variance came from input variables, particularly the outcome quasi pre-tests, and little variance came from the environmental variables. Involvement in student organizations emerged as a significant environmental variable for each outcome for men and women with the exception of congruence for men. Some of the environmental variables were significant for some outcome measures while others did not emerge as significant for any of the measures. A summary of the significant variables by each outcome for men and women are presented in Table 9. These findings are discussed in the next section. Although some environmental variables emerged as significant, they contributed to only a small amount of variance for each of the outcomes for both women and men.

Table 8
Predictors of Commitment of Self for Women and Men

	Women			Men		
	B	β	Sig	B	β	Sig
<i>1. Race</i>						
White/ Caucasian	0.030	0.034		0.184	0.177	
Black/ African American	-0.020	-0.014		0.225	0.119	
Asian American/ Pacific Islander	-0.077	-0.062		0.092	0.063	
Latino/ Hispanic	0.124	0.059		0.146	0.049	
Multiracial/ Multiethnic	0.032	0.020		0.216	0.125	
(Referent Category: Other/ Not Reported)						
	<i>R² Change</i>	0.016			0.018	
	<i>New R²</i>	0.016			0.018	
	<i>F Change</i>	2.217			1.861	
<i>2. Class Standing</i>						
Class Standing	0.030	0.075	*	0.053	0.111	**
	<i>R² Change</i>	0.003			0.013	
	<i>New R²</i>	0.019			0.031	
	<i>F Change</i>	2.360			6.892	**
<i>3. Pre-College Involvement</i>						
Student Organization	-0.007	-0.015		-0.008	-0.016	
Varsity Sports	0.006	0.017		0.004	0.009	
Community Organizations	0.023	0.059		-0.031	-0.063	
	<i>R² Change</i>	0.055			0.039	
	<i>New R²</i>	0.074			0.070	
	<i>F Change</i>	13.343	***		7.135	***
<i>4. Pre-College Formal Leadership Role</i>						
Student Organization	0.018	0.046		0.068	0.142	**
Community Organization	-0.006	-0.013		0.012	0.021	
	<i>R² Change</i>	0.011			0.023	
	<i>New R²</i>	0.086			0.093	
	<i>F Change</i>	4.180	*		6.274	**
<i>5. Pre-College Leadership Training</i>						
Pre-College Leadership Training	0.034	0.077		0.040	0.074	
	<i>R² Change</i>	0.010			0.008	
	<i>New R²</i>	0.095			0.101	
	<i>F Change</i>	7.226	**		4.465	*

Table 8 (continued)

6. *SRLS Pretest Measure*

Pretest for Consciousness of Self	0.225	0.376	***	0.295	0.427	***
<i>R² Change</i>		0.129			0.183	
<i>New R²</i>		0.224			0.283	
<i>F Change</i>		111.554	***		128.377	***

7. *Student Organization Involvement*

Involvement in Student Organizations	0.050	0.155	***	0.055	0.148	***
<i>R² Change</i>		0.024			0.009	
<i>New R²</i>		0.248			0.292	
<i>F Change</i>		21.302	***		6.469	*

8. *Community Organization Involvement*

Involvement in Community Organizations	0.035	0.081	*	0.017	-0.096	*
<i>R² Change</i>		0.005			0.007	
<i>New R²</i>		0.254			0.299	
<i>F Change</i>		4.929	*		4.922	*

Total R²

0.254

0.299

Total F

15.169 ***

14.283 ***

* *p* < .05 ** *p* < .01 *** *p* < .001

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

Women:

- Involvement Community Organizations
- Total Breadth of activities
- Leadership Role- Student Organization
- Short Term Training & Education
- Moderate Term Training & Education
- Long Term Training & Education

Men:

- Involvement Community Organizations
- Leadership Role- Student Organization
- Leadership Role- Community Organization
- Short Term Training & Education
- Moderate Term Training & Education
- Long Term Training & Education

Table 9
Summary of Significant Input and Environmental Variables by Outcome

		<i>Cons of Self</i>		<i>Congruence</i>		<i>Commitment</i>	
		F	M	F	M	F	M
Block 1	Race (Block)	X		X			
Block 2	Class Standing (Block)	X	X	X	X		X
Block 3	Pre-Col Inv (Block)	(X)	(X)	X	X	X	X
	Pre-Col Student Org						
	Pre-Col Varsity Sport						
	Pre-Col Community Organization			X			
Block 4	Pre-Col Leader Role (Block)	X	X	X	X	X	X
	Pre-Col Student Leadership Role		X		X		X
	Pre-Col Community Leadership Role						
Block 5	Pre-Col Training (Block)	X		X		X	X
Block 6	SRLS Pretest (Block)	X	X	X	X	X	X
Stepwise Blocks	Involvement Student Orgs	X	X	X		X	X
	Involvement in Community Orgs	X					
	Breadth of Involvement						(X)
	College Leadership Role	X					
	Community Leadership Role					X	
	Short-Term Training						
	Moderate-Term Training						
	Long-Term Training						
	Total R²	.337	.245	.248	.193	.254	.299

Note: X = Significant with a positive relationship; (X) = Significant with a negative relationship; for a block, all variables within the block must be negative to have this notation. Some blocks that are not noted as negative may contain some negative variables, but not all

Discussion, Implications, and Future Research

Discussion of Findings

The small amount of total variance for both men and women explained by the environmental variables in the study demonstrates that college environmental variables do not contribute substantially to development the individual values of socially responsible leadership. Because the individual values of leadership tend to be the more foundational leadership capacities (Bennis, 1989; Goleman, et al.; Kegan, 1982; Komives, et al., 2005), it could be that these values are a more stable part of self that do not experience much change. This is demonstrated in the outcome scores and amount of variance explained. The environmental variables

of the study were stronger predictors for consciousness of self, which had the lowest mean scores, than for commitment, which had the highest mean scores of the three outcomes.

This low amount of variance explained tended to be more salient for men. For two of the three outcomes, consciousness of self and congruence, the regression explained more of the variance for women than for men, suggesting that the predictors used in the regression were more relevant for women than men. This could be because women may be more intentional about their leadership development and may seek out opportunities to develop their leadership skills. Guido-DiBrito and Batchelor (1988) discuss that some leadership opportunities may not be as accessible to women as they are to men and emphasize the importance of women seeking out leadership positions and the need to encourage female student to reach their full potential in leadership-enhancing environments.

A salient finding was involvement in student organizations being the environmental variable explaining the most variance in outcome measures for each outcome with the exception of congruence for men. This reflects Astin's (1993) finding that for the outcome measure of leadership, student-student interaction, student-faculty interaction, fraternity/sorority membership, intramural sports, and volunteer work, which can all be aspects of student organization involvement, were found as significant experiences. It also reflects Astin's conclusion that student clubs and organizations and fraternity and sorority membership positively influenced growth in leadership abilities.

Involvement in student organizations as a key experience is also consistent with Byer's (1988) finding that student organization involvement contributes to a greater sense of responsibility which reflects commitment. It is also consistent with Cooper's (1994) and his colleagues study which indicated that those students who were involved in student organizations in comparison with those who were not demonstrated higher scores in leadership outcomes including developing purpose. This reflects the outcome measures of commitment and consciousness of self. Interestingly, this overall finding of student organization involvement is not in line with Dugan's (2006b) study which resulted in student organization membership not contributing to any of the three outcomes. This contradiction could reflect different ways in which involvement in student organizations was measured or campus context differences and can be further explored in future research.

Holding a formal leadership role in a college organization was significant for women's consciousness of self. Increased self-awareness and increased self-esteem, which reflects consciousness of self, were significant outcomes from Romano's (1996) study of female students holding formal leadership roles. Dugan (2006b) also identified formal leadership roles as a significant variable but instead

for commitment. Similarly, another study identified holding a leadership role as significant for White men's, White women's, and Black women's leadership ability (Kezar, 2000). The finding from the current study that holding a formal leadership role is a significant experience for women reflects findings from other studies and could indicate that experiential opportunities such as engaging in a leadership role can help students learn more about themselves as individuals.

Short, moderate, and long-term leadership training and education experiences did not emerge as significant experiences for any of the outcome measures, thereby indicating that the programs do not significantly contribute to the individual values of the model for men or women. This is not consistent with other studies on leadership training programs that identify a number of different leadership outcomes as a result of participation in such programs (Cress et al., 2001; DiPaolo, 2002; Zimmerman & Burkhardt, 1999) and Kezar & Moriarty's (2000) finding that leadership courses were the most significant experience predicting leadership ability. However, some of these studies did not focus specifically on individual aspects of leadership.

When examining the extent to which leadership training and education experiences contribute to the outcome scores in the current study, a pattern emerged that each of the environmental variables had low means and low standard deviations (see Table 5), indicating that the participants in the study had very little experience with these programs. This pattern reflected scores that are not normally distributed; these low participant numbers could help explain the lack of or low significance of the relationships. Although there were some significant findings, the way in which this form of involvement was measured and the low means could have prevented other significant findings from emerging. In addition to this limitation, it is important to note that many of the leadership training and education experiences may not emphasize the individual values of socially responsible leadership. It could be that if those experiences were more intentionally focused on encompassing such values, the environmental variables of leadership education and training would be more significant.

Involvement in community organizations was a significant variable for women's consciousness of self, and holding a leadership role in a community organization was a significant predictor for women's commitment. This reflects the role of community involvement and leadership on women's individual aspects of socially responsible leadership. Community involvement and community leadership roles were not significant for men. Community service can be included in the variable of community involvement, and has been noted in other studies as a variable that is significant in students' leadership development (Dugan, 2006b; Vari, 2005). Another explanation of this finding can relate to the more community or group-oriented, also referred to as relational and transformational, leadership practices of women as compared to men (Eagly, Johannesen-Schmidt, & van Engen, 2003;

Eagly, Karau, & Makhijani, 1995; Romano, 1996; Vari, 2005). The nature of community involvement as depicted in this study emphasized group experiences, such as religious groups, community service organizations, and PTA. The nature of group involvement may be a more significant experience for women than men as it relates to transformational or relational leadership.

While involvement in student organizations emerged as a significant experience for men across the three outcomes, breadth of involvement, which was measured by the number of type of organizations in which one was involved, was negatively related to the outcome of commitment for men. This makes logical sense in that the larger the number of types of involvements, the less commitment a participant can devote to a particular organization. One of the original items of the SMLS (Tyree, 1998) was “I find myself involved in many different things,” which is an item that was reverse scored for the outcome of commitment. Although not included in SMLS-R2 in order to reduce the length of the survey, this item reflects that involvement in many different areas, such as many different types of organizations, is negatively related to commitment. Additional research on why this variable was only significant for men and not for women would be interesting to further explore. It may, for example, relate to the types of organizations that men may be more likely to be involved with than women.

Short-term, moderate-term, and long-term leadership training and education programs did not significantly contribute to the outcomes of this study. This is consistent with Dugan’s (2006b) finding that formal leadership programming was not a significant variable for the individual values of the SCM. It would be worth exploring who this may be the case; perhaps students who opt into leadership training and education programs have already developed a strong sense of the individual values of this model, perhaps instead developing some of the group or community values of the model.

Limitations

One limitation of the study is that women, White students, and upperclassmen were slightly over represented among the responders. The findings could be more heavily reflective of these populations. The study also does not include all possible variables that could influence the outcomes of the study. For example, the I-E-O design does not take into account personal characteristics such as personality, which could also play a key role in these outcomes. Additionally, the design only includes select environmental variables as opposed to all variables thought to contribute to the variance. There could be other key environmental variables contributing to the outcomes, and the environmental variables in this study could therefore be over emphasized since other environmental variables, which could have explained some of the variance, were not entered into the regression model.

It should also be noted that some of the environmental items in the instrument, such as the different types of leadership programs, could have been unclear or unfamiliar for respondents especially those who may not have much experience in those areas. Since the survey responses were self-reported there could be some error. For example, perceptions of a high level of involvement for one participant in the study may look very different from another participant's idea of a high level of involvement. Similarly, although the leadership education and training programs were defined in the instrument as differentiated by program length and intensity (short, moderate, and long-term), the characteristics and components of the programs could be unclear. Additionally, as was mentioned in the results, the low mean scores of these variables are a limitation in the regression design because the scores are not normally distributed which could affect the regression analyses outputs. Additional research should examine more intently these environmental variables, perhaps with a sample made up of students who have experienced a range of different types and intensities of involvement. Last, it is important to note that these findings are from a single campus and may not be generalizable to different campus contexts.

Implications for Practice

The finding of involvement in student organizations being a consistently significant environmental variable (with the exception of congruence for men) supports developing and encouraging student involvement opportunities such as student organizations, living learning programs, and other experiences that include a group or team context.

The influence of community organization involvement and holding a formal role in a community organization on women is also worth addressing. This finding supports student affairs practitioners and faculty promoting experiences in the larger community off campus. Programs and services such as service learning experiences and internships can help promote community involvement. Expanding these intentional connections to the larger community, or perhaps even globally, can further enhance the leadership development of women students.

The finding that leadership training and education programs were not significant predictors of the outcomes warrants the examination of components and learning outcomes of leadership programs. Perhaps the individual values of the SCM included in this study are not being addressed appropriately, or as was previously suggested, perhaps the students who choose to be involved in such programs already have a strong sense of the individual values and will develop other values through the involvement. If the individual values of the SCM are key learning outcomes of a leadership program, leadership educators may want to consider

identifying other opportunities, perhaps by requiring student organization involvement, to better address these intended values.

Findings from this study suggest that colleges should consider providing a variety of opportunities for students to gain experiences on campus and in the larger community. As was found in this study, different experiences can significantly contribute to the different outcomes for men and women, suggesting that different opportunities should be available. Additionally, universities should continue to support co-curricular involvement through supporting student organizations with ample resources. Student affairs practitioners and leadership educators should not only help provide these opportunities, but also be proactive in promoting them.

Future Research

Building from the findings of this study, there are some suggested areas for further research. A more in-depth examination of the environmental variables in this study and examination of other environmental variables such as mentoring relationships, living on campus, or service learning would contribute to a great understanding of college environments and the role they play in contributing to socially responsible leadership outcomes. For example, this study warrants additional research in characteristics of student organization involvement and types or characteristics of student organizations that contribute to the leadership outcomes.

This research is perhaps the first I-E-O design that includes off-campus and community involvement. Since involvement in community organizations and holding a leadership role in a community organization were significant variables for female participants, this is an area that is worth exploring when studying college student involvement. The modified I-E-O design used in this study facilitates such exploration.

Last, to better understand the role of the environmental variables in this study on the leadership outcomes, it may be helpful to conduct longitudinal research to explore the effect of different college environmental factors and leadership outcome measures over time. For example, it could be helpful to understand which of the experiences provide more opportunity for development and growth over time or which outcomes show more change over time due to different experiences. This could help provide a more in-depth examination of the experiences and the role they play in developing socially responsible leadership.

Conclusion

As colleges and universities continue to emphasize the importance of leadership development of college student and as the need for assessment and accountability grows (CAS, 2006; Roberts & Ullom, 1990), there is a great need to understand students' leadership development and the experiences that contribute to the outcomes of leadership development. The current study examined the ways in which co-curricular involvement, holding a formal leadership role, and participation leadership training and education programs contribute to college men and women's leadership outcomes specifically on the individual values of the SCM. Involvement in student organizations appears to be a key experience in developing the individual values of leadership and community involvement appeared important for college women. Engaging with peers and others in organizational settings provides an opportunity to examine self in the context of others and promotes self development.

An understanding of self, commitment to one's work and values, and congruence and authenticity help provide the foundation from which leadership for social change can take place (HERI, 1996). This study helped provide insight into this topic, and future research will continue to contribute to the development of college students and the greater society.

Leadership Reconsidered, a report focusing on higher education and social change, states that "a major problem with contemporary civic life in America is that too few of our citizens are actively engaged in efforts to effect positive social change" (cited in Astin & Astin, 2000, p. 2). It is the role of leadership educators to help provide opportunities for, develop, and empower students to engage in and be effective in leadership contributing to positive social change.

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