Citizenship Education in Public Higher Education:
Curricular Strategies to Promote the Development of
Civic Knowledge, Skills, and Attitudes

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June Elly Nobbe

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Dedication

This dissertation is dedicated to my parents Roger and Virginia, who gave me the gift of life-long learning, and to Dick Nunneley who provided the critical foundation necessary for me to complete this journey.

Abstract

Citizenship education has long been recognized as a function of public higher education in the United States, and as a public good. Many authors and higher education organizations assert that the civic mission of higher education has receded in the past 15 years. This study examined recommended strategies to reinvigorate the civic mission that included integration of civic themes in curriculum and the use of active learning methods in the classroom. Exposure to a leadership minor course that integrates the two strategies was also included in the research design. The research design examined the effect of these two recommended strategies on the eight outcomes of the Social Change Model of Leadership Development. A web-based survey instrument included items associated with civic themes, active learning methods, exposure to a leadership minor course, demographic variables, pre-college experiences, and selected experiences during college. The Socially Responsible Leadership Scale – Revision 2 was used to measure the dependent variables. The survey was administered to a random sample of junior and seniors at a large public university with very high research activity. The survey was completed by 331 respondents for a 17 percent response rate. Analyses included correlation, *t*-tests, ANOVA, and multiple regression. The results provided evidence that the recommended strategies were positively correlated with the dependent variables, and had a positive significant effect on most of the eight outcomes. In the regression analyses, exposure to civic themes in curriculum and active learning methods in the classroom was the only block that resulted in a statistically significant F-change value for all eight outcomes when added to the model, highlighting the explanatory power of the

these two strategies. In summary, the research design found that these two strategies

have merit in efforts to develop civic knowledge, skills, and attitudes among

undergraduates as defined by the Social Change Model of Leadership Development.

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CHAPTER ONE

Introduction

"Education is the obvious means to foster the civic commitment and intellectual

competence that citizens need to participate effectively in public life."

-Derek Bok (2006, p. 172)

Background of the Problem

Thomas Jefferson combined the principles of American democracy and education in

his aim to produce public leaders of talent and virtue when founding the University of

Virginia. Since that time, citizenship education has been recognized as a function of

public higher education in the United States. Citizenship education has also been

recognized as a public good. John Dewey (1916) believed the American democratic

society required civic engagement to realize the potential of its citizens and communities.

He believed that education was the key to that engagement. "A liberal democracy

depends on the continuing and voluntary affirmation of a critical citizenry…thus the state

has a compelling interest to enforce forms of education that will produce such a

citizenry" (Noddings, 2000, p. 291). A citizenry, enlightened through education, will

help preserve the ideals of a democratic society such as human rights and equality, and

contribute to the public good. The Democracy Imperative is a network of higher

education educators and civic leaders who work together to strengthen democracy in and

through higher education. This network views democracy as more than a form of

government and expands the definition to include the role of citizens as active

participants. "It is a culture, a way that people interact and work together to improve

society according to a particular set of principles and practices. A strong democracy has

an educated and informed citizenry, inclusive social and political systems, and vigorous

participation of citizens in community life and public policy making" (Thomas, 2010, p.

1). This definition of democracy provides a foundation for this study.

More recent literature on citizenship as a function of public higher education

indicates that the role of colleges and universities in preparing an educated and engaged

citizenry has receded over time (Harkavy & Hartley, 2008). On January 10, 2012 the

United States Department of Education released a task force report, *A Crucible Moment:*

College Learning and Democracy's Future, in response to what is described as a trend of

"civic erosion" in the United States. The history of the shift away from the civic mission

in higher education reveals the tension created by the push towards a focus on education

for social mobility and social efficiency. There has been shift toward consumerism where

the student views education as a private good to enhance his/her ability to be competitive

in the workforce (Labaree, 1997). Results from the Cooperative Institutional Research

Program (CIRP) 2011 Freshman Survey revealed that the number one reason (85.9

percent) for attending college was "to be able to get a better job" (Pryor, DeAngelo,

Palucki Blake, Hurtado, & Tran, 2011). Adults in the United States feel compelled to

send their children to school so they can obtain a college degree that will provide the

"minimum qualification" to enter the job market (Aronowitz, 2001). Some authors

conclude that there has been a shift in public policy away from the public principle

because higher education is viewed more as an individual benefit (Duderstadt & Womack, 2003; Kezar, Chambers, & Burkhardt, 2005). The 2012 Task Force Report asserts that reframing the public purpose of higher education as only workforce preparation "suggests that colleges are no longer expected to educate leaders or citizens, only workers who will not be called to invest in lifelong learning, but only in industry-specific job training" (p. 10).

Education has long been seen as a means for enhancing the economic competitiveness of individuals and society (Kezar, 2000; Levinson, 1999). In *A Crucible Moment: College Learning and Democracy's Future*, the task force stresses that educating students for purposeful work in a dynamic, complex economy remains an essential goal of higher education. "However, we reject a zero-sum choice between the fullest preparation for economic success and education for citizenship" (p. 10). Education for social efficiency assumes that the economic well-being of society in the U.S. depends on our ability to prepare the young to carry out useful economic roles competently, and that society benefits from the contributions made by the productivity of its workers (Labaree, 1997). While education for social efficiency and social mobility are important goals in higher education, the need to bring the civic mission back into balance is a dominant theme in the 2012 Department of Education Task Force Report, the literature on the civic mission of U.S. public higher education, and among national higher education organizations such as Campus Compact, the American Council on Education, the National Forum on Higher Education for the Public Good, the Association of Colleges and Universities, and the Democracy Imperative.

The need to bring the civic mission of public higher education back into balance is also necessary as the world becomes more interconnected and complex and will require future leaders who are equipped for responsible participation in a diverse, democratic society (Bernstein & Cock, 1997; Bok, 2006; Checkoway, 2001; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Jacoby, 2009; Levine, 2007; Thomas, 2010). The question of *how* institutions of higher education can reinvigorate the civic mission in order to prepare these future leaders is the backdrop for this research.

Statement of Purpose

Strategies to reinvigorate the civic mission of public higher education could emanate from different arenas including higher education organizations, political or policy arenas, and/or within individual institutions. Within individual institutions, the focus could be on curricular and/or co-curricular areas. While out-of-classroom activities provide significant opportunities for undergraduates, the focus of this research is on in-classroom curricular strategies to promote citizenship education within an institution. Specifically, this research will examine the impact of curricular strategies on the development of civic knowledge, skills, and attitudes among undergraduate students at a large urban public research university.

Scope

Private institutions of higher education play an important role in developing citizens but the scope of this research will focus on the undergraduate experience at public colleges and universities in the United States.

Public higher education is the selected context because the historical foundation for public higher education was service to society and civic responsibility. As a result of this social charter, public colleges and universities have unique features such as public accountability, financing, legal status, and governance that distinguish public from private institutions. The challenges associated with the unique features of public higher education will be reviewed, in addition to how these associated challenges have encroached upon the public purpose of the university.

Public higher education was also selected as the context because a significant proportion of students attend public colleges and universities. The National Center for Educational Studies is the primary federal entity for collecting and analyzing data related to education in the U.S. *Projections of Education Statistics to 2020* provides a table that includes actual and projected numbers for undergraduate enrollment in all postsecondary degree-granting institutions. In 2009, 76.2 percent of students were enrolled in public institutions in the U.S. and the projection for enrollment in public postsecondary institutions in 2020 is 76.3 percent.

A review of the literature on citizenship education includes many terms such as civic engagement, public engagement, political engagement, community engagement, civic learning, democratic education, democratic engagement, civic and moral development, and civic competencies. This research study is grounded in the historical context of public higher education in the United States, so citizenship education in this study will refer to the role of U.S. public higher education in preparing students to be effective and responsible citizens.

Ehrlich (2000) claimed that in addition to civic education, democratic principles are grounded in moral principles and highlighted the need to connect the intellectual content of learning to the development of moral and civic goals. Moral development and moral reasoning often appear in the literature on citizenship education but the primary focus of this study is the civic dimension of citizenship education.

There are also many frames associated with citizenship education such as social change, social justice, charity, public work, empowerment service, and the communitarian frame. This study will examine citizenship education through the frame of social change.

Knowledge, skills, or values are pathways to pursue outcomes related to citizenship education (Battistoni, 2006). In addition to traditional forms of academic knowledge such as historical events and democratic governmental institutions and operations, Battistoni frames civic *knowledge* as a deeper understanding of issues. "An understanding of 'place' and the community history that provides a context for service and public problem solving—including learning about how individuals and community groups have effected change in their communities—is another element of civic knowledge" (p. 16). He goes on to identify a set of civic *skills* necessary for active participation in democratic public life which include critical thinking; communication and deliberation; public problem solving; civic judgment; civic imagination and creativity; teamwork, coalition building, and collective action; community organizing; and organizational analysis. Battistoni acknowledges that civic *values* related to

democratic public life are often described with more neutral terms such as attitudes or dispositions. This research study will focus on civic knowledge, skills, and attitudes.

A study of citizenship education could include an examination of the historical roots of citizenship education, comparisons with citizenship education in different cultural contexts, different philosophical approaches to citizenship education, student characteristics, the role of faculty, institutional leadership, the connection with citizenship education in K-12, and institutional initiatives that promote citizenship education. The focus of this research will be the latter—institutional approaches vis-à-vis undergraduate curriculum and pedagogy that promote civic knowledge, skills, and attitudes.

CHAPTER 2

Literature Review

Public Higher Education

This section will present the historical purpose of public higher education, unique

features of public colleges and universities and a review of current challenges facing

public higher education including a more extensive review of the challenges surrounding

financing.

Historical Purpose

Thomas Jefferson combined democracy and education in his aim to produce

public leaders of talent and virtue when founding the University of Virginia in 1825. The

public intersection with administration and control was written into the charter and made

the University of Virginia a public enterprise (Brubacher & Rudy, 2002). The public

university in America is an established social institution, "created and shaped by public

needs, public policy, and public investment to serve a growing nation" (Duderstadt &

Womack, 2004, p. 6). The public university, created by public policy and supported

though public tax dollars, is a public good. In exchange for public support, the public

university provides service to society through research, development of professional

fields, preparing leaders for public service, educating citizens to serve democracy, and

contributing to economic development (Duderstadt & Womack, 2003; Kezar, Chambers,

& Burkhardt, 2005). "While elite private universities were important in setting the

standards determining the character of higher education in America, it was the public university that provided the capacity and diversity to meet the nation's vast needs for postsecondary education" (Duderstadt & Womack, 2003, p. 204).

In 1862, the federal government entered the arena of higher education with the passage of the Morrill Act, which provided land in exchange for serving the needs of society via mechanical, agricultural, and military sciences. The Morrill Acts were also implemented to expand access to higher education and to advance democracy (Benson, Harkavy, & Hartley, 2005; Brubacher & Rudy, 2002; Kerr, 2001; McDowell, 2001). Kerr (2001) identified this development as significant in linking universities closely with the daily life of individuals in American society. George McDowell, a professor in agriculture and applied economics at Virginia Polytechnic and State University, wrote about the history of land-grant universities. He stated, "Both by virtue of their scholarly aims and who they would serve, the land-grant universities were established as people's universities. This was their social contract" (2001, p. 3). The extent to which the "social contract or charter" in public higher education has been upheld, neglected, or in need of renegotiation is a source of significant discussion among authors and in national higher education organizations such as Campus Compact, the American Council on Education, the National Forum on Higher Education for the Public Good, and the Association of American Colleges and Universities.

Unique Features

In addition to the public purpose, public colleges and universities have other unique features that distinguish them from private institutions. James Duderstadt and Farris

Womack (2003), former President and CFO of University of Michigan respectively,

published a book about the future of public higher education based on their

administrative and academic careers in public universities. They highlighted legal status

and governance as the greatest distinction between public and private. They described

public universities as "creatures of the state, owned by taxpayers and governed by public

process" (p. 13). They are held accountable to state regulations and laws. The governing

boards are selected through public, political mechanisms. Public universities operate in a

complex environment that includes diverse stakeholders such as students, faculty,

parents, alumni, taxpayers, and sports fans. The environmental context is further

complicated by the involvement of state higher education agencies, elected public

officials, and the media in influencing public policy.

Funding for Public Higher Education and Public Accountability

Changes in funding for higher education have been most dramatic in public

institutions because state funding has declined while institutional costs have increased

(Business-Higher Education Forum, 2004; Duderstadt & Womack, 2003). Public

colleges and universities are already pursuing alternative revenues from tuition, fees,

research overhead, and fundraising (Johnstone, 2001). While private institutions face

similar financial challenges, "actions that would be straightforward for private

universities such as enrollment adjustments, tuition increases, or program reductions, can

be formidable for public institutions" (Duderstadt & Womack, 2003, p. 194).

Since the 1960s, the commitment of legislative and executive authorities to maintain

a level of funding necessary to offer high-quality public higher education for students has

become a key public issue (Aronowitz, 2000). Clark Kerr (2001) identified 1990 – 2015 as an era of constrained resources. He pointed to a national decline in productivity, a public "revolt" against taxes that has placed pressure on revenues available for public distribution, the prolonged recession, and the increased demands for public purposes such as elder care, health care, care of children and youth, and care of the environment.

Arthur Levine (2001) claimed that there is a growing belief in state capitals that the costs of higher education are too high, due to program redundancy, the proliferation of remedial programs, administrative overhead, the costs of research, low teaching productivity, and the maintenance of physical plants. Additional complaints aimed at higher education's leadership include wastefulness, wrong priorities, reluctance to restructure, insensitivity to the college consumer, and overselling or over enrolling (Johnstone, 2001). In response to the challenges related to the topic of funding, institutions are being called upon to provide evidence of effectiveness and accountability (Jacoby & Hollander, 2009; Hearn & Holdsworth, 2000).

The decline in state funds for public higher education has led to competition "within campuses, among campuses, between systems, and between public and private campuses for competitive advancement" (Kerr, 2001, p. 177). Existing colleges and universities are also competing with the business sector and other knowledge-producing organizations in an effort to provide postsecondary education (Levine, 2001). This market competition will require different strategies for public universities which are more closely aligned with the business sector (Duderstadt & Womack, 2003).

Several authors (Duderstadt & Womack, 2003; Kezar, Chambers, & Burkhardt, 2005) have concluded that market forces, in addition to the new focus on revenue generation and the individual benefits of higher education as students and families assume more of the financial burden for postsecondary education, could encroach on the ability for public higher education to serve the broader public purpose. Market forces have also had an impact on liberal education which will be discussed later in this review.

From a different perspective, authors have proposed that the public purpose could provide an opportunity to renew public support for public higher education. It is the public good that justifies the public investment (Longanecker, 2005). Dunderstandt and Womack (2003) suggested that it is the service role that builds the level of public understanding and support necessary to support the teaching and research mission of the university. Yet another author proposed that in a market-driven context, civic engagement might be viewed as a "product," or an expression of financial capital (McKee-Culpepper, 2007).

The long-term impact of market forces on public higher education is uncertain. What is clear is the need to determine how to strike a balance between today's economic imperatives with the public character and civic purpose of public higher education (Duderstadt & Womack, 2003; Jacoby & Hollander, 2009; Kezar, Chambers, & Burkhardt, 2005).

The Shift Towards Economic and Workforce Development

The Association of Governing Boards of Colleges and Universities and the State Higher Education Executive Officers (SHEEO) list economic and workforce

development as a key public policy issue for higher education. The Spellings Report (2006) outlined an ambitious set of goals for American higher education, which included the need for a higher education system that provides citizens with the workplace skills necessary to adapt to a rapidly changing economy.

Authors in higher education literature also point to the shift in the focus of higher education towards economic and workforce development. Majors in business, accounting, education, engineering, and other technical areas have grown, while liberal arts majors have declined in higher education (Aronowitz, 2001). Results from the 2004 Cooperative Institutional Research Program (CIRP) Freshmen Survey revealed that the level of student interest in general biological sciences, biochemistry or biophysics was twice as high in 2004, compared to student level of interest in these majors in the late 1980s (Sax, *et al.*, 2004). A press release from the Higher Education Research Institute (2010) reported that trends from the CIRP Freshman Survey showed that more than a third (34 percent) of students entering college now aspire to major in science, technology, engineering, or mathematics (STEM), which is higher than students entering in college in the late 1980s and early 1990s. Professional fields and higher education now emphasize the marketability of their technical skills and de-emphasize their contribution to civic life, so students view higher education degrees as the ticket to jobs and goods (Aronowitz, 2001; Sullivan, 2000).

Laboree (1997) argued that many students view education as a private good to enhance his/her ability to be competitive in the workforce. The shift in higher education towards social mobility is influenced by the competition in the job market for high-

paying jobs. Results from a report on forty year trends for the CIRP Freshman Survey

indicated that in 2006, 66.5 percent of students indicated that "the chief benefit of a

college education is that it increases one's earning power" (Pryor, Hurtado, Saenz,

Santos, & Korn, 2007). The 2011 CIRP Freshman Survey was administered to 203,967

first-time, full-students at 270 four-year colleges and universities. Results revealed that

the number one reason (85.9 percent) for attending college is to "get a better job" (Pryor,

DeAngelo, Palucki Blake, Hurtado, & Tran, 2011). Steven Rosenstone, former Dean of

the College of Liberal Arts at the University of Minnesota, recognized the public support

for the "financial value" of a degree, which correlates with enhanced earning power and a

higher standard of living (2001).

   Education has long been seen as a means for enhancing the economic

competitiveness of individuals and society (Kezar, 2000; Levinson, 1999). Levinson

states, "When countries or individuals are faced with economic threats, they typically

turn to education to provide the solution" (p. 135). Aronowitz argued that most colleges

and universities are measured for success, in part, by how much they contribute to the

economy. Public universities have become vehicles for economic growth and workforce

development, which has led to a public perception that this function is the core purpose of

a public university (Rosenstone, 2001). Others argue that due in part to declining state

support, public universities are becoming more aligned with business and industry in an

effort to solicit research funds and to remain viable (Harvey, 1998; Press & Washburn,

2000; Rosenstone, 2001). Cote and Cote (1993), in researching economic activity among

land-grant institutions, stated,

In addition to the goal of increased funding, presidents may perceive a fundamental change in the relationship between academic institutions and economic well-being in the American society. Clearly, the concern about international competitiveness also represents a strong motivation for academic institutions to play a greater role in economic advancement. (p. 69)

Authors surmise that the recent emphasis on economic and workforce development has had an impact on the civic purpose of public higher education. Barry Checkoway claimed that the current research university has been transformed from a civic institution into a "powerful research engine" (Checkoway, 2001). Adrianna Kezar elaborates, "Publicly funded colleges and universities are now encouraged to privatize some activities, becoming for-profit entities with economic engines and with private and economic rather than public and social goals" (2005, p. 24).

Changes in Liberal Education

The mitigating forces that impact the function of citizenship education in higher education have also had an effect on liberal education. This section will provide an overview of the benefits of liberal education, how mitigating forces impact liberal education, and how liberal education is connected to the public purpose of higher education.

A liberal arts education "frees the mind, offering personal liberation from ignorance and constraint" (Keohane, 2001, p. 182). Liberal arts include an emphasis on literature, philosophy, history, and the social sciences. The ability to read, write, and converse with ease and interest; a familiarity with human history and diverse cultures; some

understanding of the scientific method; and appreciation of art, quantitative reasoning, and critical thinking are among the desired outcomes of a liberal arts education (Keohane, 2001). Keohane asserted, "liberal education teaches people how to learn rather than to master a technical skill that may someday become obsolete" (p. 184). Harold Shapiro, former president of Princeton and the University of Michigan, added, "Liberal arts curriculum aims to complement the educational objectives of a narrowly technical or professional education and to help create a certain type of citizen…these two organizing ideas of liberal education have persisted through time" (2005, p. 95).

Aronowitz (2000) argued that the issue of funding has had an impact on liberal arts education. Should liberal arts be available to every student, regardless of discipline, or should students in technical and professional areas be exempt from liberal arts education? Aronowitz (2000) posed this question as a key issue for the future of public higher education. He stated,

In the current environment, budget cuts and downsizing are prescribed by policymakers as the zeitgeist has shifted to the view that only the marketplace represents quality and anything connected to the public goods that does not submit itself to the business environment is a second-rate article (p. 370).

Economic pressures have contributed to the curriculum reform that is in process in public higher education. Aronowitz indicates that many colleges and universities are trying to find a "mission" that will convince legislators that they have an economically viable role by providing competent labor and income to local and regional communities. Third tier (non-research) colleges and universities are being pushed by regents and state

commissions of higher education to "find new ways to close budget shortfalls by raising tuition, to make alliances with corporations or otherwise turn their predominantly liberal arts institutions into vocational schools, or to add more research capacity to their faculty and facilities" (Aronowitz, 2000, p. 376). Students who view the higher education degree as essential for survival may not feel they have the freedom to dapple in other interests. James Freedman, former president of the University of Iowa and Dartmouth, agreed, "Many families view a liberal education as a luxury appropriate primarily for the affluent few, an entitlement for the fortunate minority who can afford to delay the necessity of earning a living" (2003, p. 55).

Other authors claim that education and scholarship have become increasingly commercialized, professionalized, and specialized and this has led to a fragmentation of the purposes and principles of a university (Duderstadt & Womack, 2003; Freedman, 2003).

Carol Geary Schneider (2005) has been president of the Association of American Colleges and Universities (AAC&U) since 1998, and has approached the discussion on changes in liberal education from a more philosophical perspective. She asserted that during the twentieth-century disciplines became more sophisticated, and more time was spent on teaching students how to use the analytical tools of their disciplines and less time on civic outcomes of liberal education. "As critics observed, the twentieth-century curriculum implicitly envisioned each learner as a separate and unencumbered self. Social and interpersonal development, like civic engagement, was delegated to the co-curriculum and to each students' private time" (p. 134).

On a positive note, Duderstadt and Womack (2003) argued that liberal education can play a vital role in the knowledge-driven economy of the future. In an environment where graduates will likely change careers many times in their lives, the authors suggested that a highly specialized degree may not be appropriate. Instead, the focus should be on a liberal education that provides students with breadth of knowledge and the acquisition of skills for further learning.

Schneider (2005) sees possibilities for a "civic turn" in liberal education. She describes a new ethos growing in the academy that is expanding the focus on knowledge to include engaged learning that involves students in analyzing and working to solve significant problems in society. Through her work with the AAC&U, Schneider observed that more disciplines are integrating problems from the public sphere, and she pointed to an emerging emphasis on the benefits of liberal education that contribute to civil society, a diverse democracy, the global community, and a creative economy. "This movement toward new forms of civic learning in undergraduate education has the potential to revitalize the core meanings of liberal education in the twenty-first century academy and to enrich its practices" (p. 128). However, this movement toward civic learning is presented with obstacles which include but are not limited to the elective nature of civic learning, lack of reward and incentives for faculty, and the need for students to view civic learning as important to their postsecondary education.

The Call to Renew the Civic Mission of Public Higher Education

The call to renew the civic mission of public higher education in the United States is on the agenda of several higher education organizations. This agenda coincides with an

upward shift in political participation and civic attitudes among youth. This section will focus on the rationale for the call to renew the civic mission of public higher education.

Higher Education Organizations

Harry Truman was the first U.S. President to engage with a national higher education policy when he appointed the President's Commission on Higher Education. Among the recommendations in the 1947 Truman Commission report, one called for a curriculum that would promote a sense of common culture and citizenship (Smith & Bender, 2008).

In the 1985 Carnegie Foundation report, *Higher Education and the American Resurgence,* Frank Newman argued that we have failed to provide the education for citizenship that is still the most important responsibility of the nation's schools and colleges. He claimed that citizenship education is more critical than the issue of declining test scores. The "Wingspread Declaration on the Civic Responsibilities of Research Universities" (Boyte & Hollander, 1999) called on research universities to renew the civic mission of American higher education. The authors of *Civic Responsibility and Higher Education* (2000) argued that higher education should play a role in reversing the trends in civic engagement and political participation, and should revitalize the focus on citizenship education. In his book, *Our Underachieving Colleges*, former Harvard President Derek Bok claimed that colleges underachieve in preparing students for citizenship (2006). He argued that the role of higher education in this arena takes on special significance given the connection between level of education and voting rates, and the likelihood that college graduates will assume leadership roles in the public

sphere. He stated, "developing citizens is not only one of the oldest educational goals but a goal of great significance for educators themselves" (p. 193).

National organizations such as Campus Compact, the American Council on Education, the National Forum on Higher Education for the Public Good, and the AAC&U have become active in the arena of enhancing civic engagement by promoting research, experiential learning, and the review of institutional accreditation to highlight the moral and civic development of college students. For example, the Association of American Colleges and Universities (AAC&U) has created a consortium of institutions committed to advancing ethical, civic, and moral development in order to respond to the nation's unprecedented ethical and civic challenges. The Research Universities Civic Engagement Network (TRUCEN) was established in 2005 by Campus Compact and Tufts University and includes over 30 universities interested in fostering the civic education of their students (Hollander, 2011). In 2007, the Carnegie Foundation for the Advancement of Teaching added an elective classification of "Community Engagement" which includes a category for curricular engagement. This category requires that teaching, learning, and scholarship engage faculty, students, and community in mutually beneficial collaborations that address community-identified needs, deepens students' civic and academic learning, contributes to the well-being of the community, and enriches scholarship. Applicants for this classification need to provide descriptions and examples of institutionalized practices that demonstrate community engagement.

The National Forum on Higher Education for the Public Good (formerly the Kellogg Forum on Higher Education for the Public Good) was established in 2000 at the University of Michigan. The forum evolved "out of concern for the shifting role that colleges and universities were playing in addressing important social issues and preparing their students for the civic, economic, and cultural demands of this and future generations" (Chambers, 2005, p. 17). Chambers asserted that higher education should be a major player in the network of concerned individuals and groups that are coalescing around a common sense of what is needed to support democracy for the future.

The American Democracy Project is a collaborative effort involving the American Association of State Colleges and Universities and the *New York Times*. The project was initiated in 2003 and is a multi-campus initiative focused the role of higher education in preparing informed, engaged citizens. The project involves national and regional meeting, a national assessment project, and campus initiatives.

The Democracy Imperative is a network of higher education educators and civic leaders who began meeting in 2007 to discuss a variety of issues associated with a decline in civic engagement in America, dissatisfaction with partisan politics, growing economic and political inequality, and issues surrounding academic and free speech on college campuses. The paper that framed these issues (Thomas, 2010) was used as the background for the 2012 National Task Force on Civic Learning and Democratic Engagement.

Recent Shifts in Political Participation and Civic Attitudes Among Youth

The 1990s was a period of declining political participation among youth. For college students, positive attitudes toward political affairs also declined. Data from the U.S. Bureau of the Census Report on voting in the 2000 presidential election indicated that 36 percent of individuals in the age range of 18 to 24 voted in the 2000 election compared to 51 percent in 1964. However, in 2004, the results increased to 47 percent, moving closer to the 51 percent youth turnout in 1964. The results in 2008 declined slightly to 44 percent. The 2008 CIRP Freshman Survey was administered to 240,580 first-time, full-time students at 340 baccalaureate colleges and universities Results from this survey revealed that 89.5 percent of first year students reported that they frequently or occasionally discussed politics in the last year.

In regard to civic attitudes, the 2010 Freshman Survey norms were based on responses from 201,818 first-time, full-time, first-year students at 279 institutions. Longitudinal results related to community service revealed a significant increase in first-year respondents indicating that there was a "very good chance" they would volunteer during college from 17 percent in 1990 to 32 percent in 2010 (Pryor, Hurtado, DeAngelo, Palucki Blake, & Tran, 2009). HERI also administers the College Senior Survey (CSS) which is a follow up to CIRP Freshmen Survey. The 2010 CSS included 111 participating institutions 24,457 graduating senior respondents. Results from the 2010 survey revealed that over two-thirds of the respondents (72 percent) "occasionally" or "frequently" performed volunteer work since entering college. Eighty-four percent reported that they "occasionally" or "frequently" discussed politics with their peers

(Franke, Ruiz, Sharkness, DeAngelo, & Pryor, 2010). The 2010 CSS report also provided longitudinal data for graduating seniors that had also taken the Freshmen Survey (TFS). Percentage increase in responses from the freshmen to senior surveys included "keeping up to date on political affairs" (43 to 52 percent), "influencing social values (42 to 50 percent), "helping others who are in difficulty" (70 to 77 percent), "participating in a community action program" (30 to 36 percent), "becoming a community leader" (38 to 43 percent), "influencing the political structure" (21 to 24 percent), and "helping to promote racial understanding" (32 to 36 percent).

These upward trends provide new baselines for institutions to reinforce interests and behaviors related to social and civic responsibility among incoming students, and to provide challenge and support for further development during the undergraduate experience.

The Need for Future Citizen Leaders

As stated previously, the world has become more interconnected and complex, and will require future leaders who are equipped for responsible participation in a diverse, democratic society (Bernstein & Cock, 2007; Checkoway, 2001; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Jacoby, 2009; Levine, 2007; Smith, 2003; Thomas, 2010). The Business-Higher Education Forum (BHEF) is a national organization comprised of chief executives from business and higher education. In 2004, BHEF surveys indicated that employers were looking for a combination of skills and knowledge including leadership, teamwork, problem solving, analytical and critical thinking, communication skills, and writing skills. These were identified as necessary

skills to succeed in a global, multicultural environment. In a 2006 BHEF issue brief, corporate and academic leaders identified a set of important outcomes of a college education. These included a sense of values, principles and ethics; critical thinking and reasoning skills; heightened cultural and global awareness; and strong writing and oral communication skills.

A new set of items to reflect key skills employers consider important for participation in a diverse workplace were added to the 2008 CIRP Freshman Survey. These include the ability to see the world from someone else's perspective, tolerance of others with different beliefs, openness to having my own views challenged, ability to discuss and negotiate controversial issues, and ability to work cooperatively with diverse people.

In summary, the message from the literature review is clear. The need to renew the civic mission of public higher education is a prominent agenda for higher education.

Influence of Higher Education on Citizen Participation

Does higher education have an influence on citizen participation? More than a half-century of empirical research on mass political behavior points to the influence of education on civic and political engagement (Nie & Hillygus, 2001). "Amount of formal education is almost without exception the strongest factor in explaining what citizens do in politics and how they think about politics" (Nie & Hillygus, 2001, p. 30). Former Princeton President Harold T. Shapiro claimed, "In contemporary times, a university education is almost a requirement of a fully expressed citizenship" (2005, p. 8).

In reviewing research on the positive long-term effects of college on civic and community attitudes and involvement, Pascarella and Terenzini (2005) drew upon evidence from nationally represented samples, citing 10 studies that monitored college graduates' commitments and behaviors from four to 15 years after graduation. They concluded that the research is consistent on outcome measures such as involvement in community groups, commitment to "other-oriented" goals, involvement in service-related careers, and an interest/commitment to community leadership. The authors added that these results were consistent across studies despite controls for students' precollege characteristics and dispositions toward community service or involvement, characteristics of the institutions, or the experiences students had while in college. It is important to note that Pascarella and Terenzini did not estimate the magnitude of effect size. At the beginning of the text, they acknowledge limitations in synthesizing findings from nationally representative samples, including problems of generalizability due to the varied characteristics of samples, different uses and interpretations of scholars and researchers accessing national data, and problems in identifying the actual magnitude of effect size. However, the common threads that emerged from 10 different studies are worth noting.

The Cooperative Institutional Research Program collected longitudinal data from 12,276 students from 209 four-year colleges and universities who completed the CIRP Freshmen Survey in 1985. A four-year follow-up survey was administered in 1989 that included information on students' college experiences, their perceptions of college, and post-tests of several items from the 1985 survey. The nine-year follow-up survey,

administered in 1994, provided information on graduate school, early career experiences, involvement in community service/volunteerism, and post-tests of items from the 1985 and 1989 surveys. Private institutions were included in data collection but the results are still worth examining in the context of public higher education. Longitudinal data illustrated that during the college years, students become more committed to helping others in difficulty, influencing social values, influencing the political structure, and participating in community action programs (Sax, 2000).

While evidence demonstrates that higher education influences citizen participation, correlations between years spent in school and college and political and civic participation may not be the only factor contributing to higher levels of participation. For example, the authors of the report organized by the Carnegie Foundation for the Advancement of Teaching and CIRCLE (2006) point out the need to examine other factors such as (1) youth who are already interested in civic and political participation are more likely than the disengaged to attend and complete college; (2) those who are educationally more successful are likely to have more social status and resources; and (3) colleges attract young people who are civically engaged and civic learning may also occur through peer interactions.

The literature calls for a renewal of the civic mission of public higher education and research demonstrates that higher education influences aspects of citizenship participation. "Civic responsibility must be learned, for it is neither natural nor effortless" (Bok, 2006, p. 172). The next section will focus on a review of the skills that

authors identify as important to the goal of preparing undergraduates for effective and responsible citizenship.

<div align="center">Civic Skills and Characteristics</div>

Derek Bok (2006) identified fundamental aims of undergraduate education that help students acquire an intellectual foundation that enable them to be thoughtful about voting and participation in public life. These aims included analytical and problem-solving skills, ethical awareness and moral reasoning, and tolerance and respect for other points of view.

Richard Battistoni is professor of Political Science at Providence College and founding director of the Feinstein Institute for Public Service at Providence College. The skills that he proposed for active participation in democratic public life included critical thinking; communication and deliberation; public problem solving; civic judgment; civic imagination and creativity; teamwork, coalition building, and collective action; community organizing; and organizational analysis (Battistoni, 2006).

Colby, Ehrlich, Beaumont, and Stephens (2003) approached citizenship education through the lens of preparing college students for lives of moral and civic responsibility. In *Educating Citizens*, the four scholars from the Carnegie Foundation for the Advancement of Teaching shared their insights on the importance of moral and civic education. In general terms, they asserted that morally and civically responsible individuals understand their role in a larger social system and their responsibility for social problems. Morally and civically responsible individuals can see moral and civic dimensions of issues, can deal with the complexity of such issues, can make informed

moral and civic judgments, and will take action when appropriate. In addition, these individuals will draw upon moral emotions such as "empathy and concern for others; moral and civic values, interests and habits; and knowledge and experience in the relevant domains of life" (p. 18). More specifically, Colby, Ehrlich, Beaumont, and Stephens identified critical and integrative thinking, communication, and problem solving as student outcomes that play an important role in moral and civic maturity. They went further to highlight other elements of these outcomes that play a role in enhancing moral and civic responsibility. These elements included,

Self-understanding or self-knowledge; understanding of the relationship between the self and the community;

Awareness of and willingness to take responsibility for the consequences of one's actions for others and society;

Informed and responsible involvement with relevant communities;

Pluralism; cultural awareness and respect; ability to understand the values of one's own and other cultures; and

Appreciation of the global dimensions of many issues (p. 53).

In regard to preparing young and old to meet the demands of democracy, Berstein and Cock (1997) listed important citizen traits as outlined by political theorist Benjamin Barber. Barber is the former Kekst Professor of Civil Society at the University of Maryland, a Principal and Director of the New York office of the Democracy Collaborative, and former Director of Democracy at Rutgers. The citizen traits outlined by Barber included a willingness to engage in public issues, empathy and respect for

differences, commitment to non-violence and conflict resolution, and the ability to analyze information, evidence, and argument.

Boyte and Kari (2000) identified themes that have emerged throughout American history in regard to the goal of producing citizens who are: "(1) rights-bearing members of a representative political system who choose their leaders through elections; (2) concerned members of communities who share common values and are responsible to each other and for their communities; and (3) public problem-solvers and co-producers of the public goods" (p. 40). They stated that democracy education must teach lifelong civic skills such as public argument, civic imagination, the ability to formulate information critically, interest in public affairs, and the ability to work with individuals different from ourselves (Boyte & Kari, 2000; Kezar, 2005). Battistoni (1997) summarized Alexis de Tocqueville's position that in democracies, citizens need to overcome the powerlessness of independence by learning to voluntarily help one another and by participating in community-based organizations. Being a good citizen relates to both individual behavior and relationship with others, which leads to a greater sense of responsibility for actions and the needs of others.

More recently, Barbara Jacoby (2009) refined a definition of civic engagement created by the Coalition for Civic Engagement and Leadership at the University of Maryland and used the definition as a basis for *Civic engagement in higher education: Concepts and practices.* From this definition, civic engagement involves one or more of the following,

Learning from others, self, and environment to develop informed perspectives on

social issues;

Valuing diversity and building bridges across difference;

Behaving, and working through controversy, with civility;

Taking an active role in the political process;

Participating actively in public life, public problem solving, and community

service;

Assuming leadership and membership roles in organizations;

Developing empathy, ethics, values, and sense of social responsibility; and

Promoting social justice locally and globally (p. 9).

<div align="center">Approaches to Citizenship Education</div>

The skills outlined in the previous section were identified as important to citizenship

development. This section will focus on two approaches that emerged from the literature

as possible methods for promoting citizenship education. These include the integration

of civic themes into the curriculum and active learning methods.

Integration of Civic Themes in Curriculum

A strategy for enhancing citizenship education is through the integration of civic

themes into the curriculum. A premise of the publication *Civic Engagement in Higher*

Education (Jacoby, 2009) is that "opportunities to learn about and practice civic

engagement must be embedded throughout the curriculum and the cocurriculum" (p. 2).

Ehrlich (2000) suggested that the intellectual content of learning should be connected to

the development of moral and civic goals. Ehrlich argued that one of the goals of higher

education should be to help students develop capacities to "examine complex situations

in which competing values are often at stake, to employ both substantive knowledge and moral reasoning to evaluate the problems and values involved, to develop their own judgments about those issues, and then to act on those judgments" (p.xxv). This will enhance students' abilities to formulate information critically and to solve public problems, which are both civic skills.

The Liberal Education and America's Promise initiative (2007), under the auspices of the AAC&U, recommended that personal and social responsibility should be an essential learning outcome for every field of study. Specifically, personal and social responsibility related to local and global levels of civic knowledge and engagement, intercultural knowledge and competence, ethical reasoning and action, and foundations and skills for lifelong learning. The report goes on to outline the need to expand "active, hands-on, collaborative, and inquiry-based forms of teaching and learning" (p. 11). The following section focuses on teaching methods.

Active Learning Methods

Effective integration of civic learning into the curriculum requires that students be emotionally and intellectually engaged in their learning (Colby, Ehrlich, Beaumont, & Stephens, 2003). These authors presented "pedagogies of engagement" that expand beyond traditional approaches such as lecture and discussion. These pedagogies included experiential learning, service learning, problem-based learning, and collaborative learning.

Experiential learning is an active learning method, based on learning as a cycle that begins with experience, continues with reflection, and leads to action. It is also based on

a philosophy that one learns best by doing (Walter & Marks, 1981). The

Carnegie/CIRCLE report (2006) on the civic mission and civic effects of higher

education presented a preliminary finding from the Carnegie Foundation's Political

Engagement Project. The project examined 21 courses and programs at a diverse set of

institutions in the United States that use various forms of experiential civic education at

the college level. In examining these courses and programs, preliminary findings show

that experiential approaches to civic education help foster learning environments where

students challenge ideas, and connect real-world activities and social interaction with

discipline-based instruction, particularly for students who enter the programs with a low

level of political interest.

Service learning is a form of experiential education and is a common method for

integrating civic learning into the curriculum (Colby, Ehrlich, Beaumont, & Stephens,

2003). One of the goals of service learning is to help students see that they are not only

autonomous individuals but also are accountable to others (Kezar & Rhoads, 2001).

Kezar and Rhoads claim that service learning is a "seamless" view of learning, bridging

the cognitive and affective dimensions. They give the example of helping students

develop social responsibility by involving cognitive processes such as understanding the

meaning and interaction of community and citizenship. O'Grady (2000) describes

service learning as "a way to create positive social change through an increase in

students' understanding of social responsibility" (p. 9). Enos and Troppe (1996) argue

that "Service learning helps students and faculty integrate context with content, explore

competing definitions of the common good, question the uses of knowledge, and confront

multiple layers of meaning" (p. 180).

Problem-based learning is another active learning method in which students are

presented with critical thinking or real-life problems, shifting the focus of the course to

the problems, rather than the text or assignments (Bean, 2001; Colby, Ehrlich, Beaumont,

& Stephens, 2003). The instructor serves as a coach, guiding students through research,

planning, and in the creation of solutions. "Once professors focus on critical thinking,

much of their classroom preparation time shifts from planning and preparing lectures to

planning and preparing critical thinking problems for students to wrestle with" (Bean,

2001, p. 121).

Collaborative learning is another experiential learning pedagogical approach in

which the instructor serves as a coach and students work in small groups or teams (Bean,

2001, Colby, Ehrlich, Beaumont, & Stephens, 2003). In many cases, the groups work on

projects, assignments, or create solutions to problems presented by the instructor.

Collaborative learning presents opportunities for students to learn how to reach consensus

though inquiry, analysis, and argument (Bean, 2001). Bean summarizes research on the

effectiveness of collaborative learning,

> Collaborative learning promoted argumentation and consensus building; each student
>
> had to support a hypothesis with reasons and evidence in an attempt to sway others.
>
> The improved thinking grew out of the practice of formulating hypotheses, arguing
>
> for their adequacy, and seeking a reasoned consensus that all group members could
>
> support. (p. 150)

A recommendation that emerged from the literature is that the development of civic skills in college students can be facilitated through active, experiential learning that promotes outcomes such as critical thinking, moral reasoning, social responsibility, civic-mindedness, and exposure to diversity (Battistoni, 1997; Bringle & Hatcher, 1996; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Jacoby, 1996; Kezar & Rhoads, 2001; Mentkowski, 2000; O'Grady, 2000; Rimmerman, 1997; Sax, 2000; Thomas, 2000). The recommendation is based on a combination of theory, practice, and studies of programs.

In order for students to learn about civic skills, active learning must take place within an analytical and critically reflective context, teachers must get to know their students on an individual basis, and teachers must view students as future citizens, not simply as the future workforce (Reeher & Cammarano, 1997). They also reference an article from the Kettering Foundation, which suggests that citizenship education can best be taught through "'learning by doing'-the public component, 'learning by talking'-acquiring deliberative skills, and 'learning by practicing'-democratizing the campus" (p.19). According to Rimmerman (1997), courses for citizenship education should include a critique of American democracy, demonstrate the importance of participating in political decisions, encourage students to broadly conceive democracy participation, examine relationships among gender, race and class in the participating process, and prompt students to confront their prior assumptions regarding leadership and power.

In summary, the literature review reveals that multiple experiences are needed for citizenship development. Integration of civic themes into the curriculum and active

learning methods emerged as recommended strategies to promote citizenship education,

but empirical evidence to support these recommendations is limited. The review of liberal

education earlier in this paper also highlights how citizenship is integrated in curriculum.

The section that follows provides an example of an academic program that integrates the

two curricular strategies outlined in this chapter in order to promote civic   knowledge,

skills, and attitudes among undergraduates.

Example

 In 1998, a group of faculty and staff at the University of Minnesota-Twin Cities

were appointed to work on the development of an undergraduate leadership minor

focused on leadership in the context of social change in citizenship. The origin of the

conceptual idea to create an academic minor emerged from a series of interviews and

focus groups, conducted by student affairs professionals, with undergraduates involved

various student groups such a student government, multicultural groups, social sororities

and fraternities, and campus activity programming boards. Staff from the division of

Student Affairs collaborated with faculty from the College of Education and Human

Development (CEHD), and the Hubert H. Humphrey Institute of Public Affairs (HHH) to

design the curriculum and obtain approval from the University of Minnesota Board of

Regents to implement the interdisciplinary leadership minor. The minor was approved in

2001 and continues to be a collaborative partnership between Student Affairs, CEHD,

and HHH.

The leadership minor development team conducted research on leadership program

models and selected the Social Change Model of Leadership Development (HERI, 1996)

as the theoretical framework to design the curriculum and minor course sequence.

Implementation of the Social Change Model of Leadership Development in the minor

program is an example of integration of civic themes in curriculum and the use of active

learning methods. The desired values or outcomes of the Social Change Model

correspond with the civic knowledge, skills, and attitudes outlined in this literature

review.

While there are other frames associated with civic-focused education such as social

justice, public work, and empowerment service, the Social Change Model of Leadership

Development frames leadership in the context of effecting change on behalf of others and

society.

The model was created in 1993 under the auspices of the Higher Education Research

Institute. Helen and Alexander Astin assembled a team of educators to create a model

designed to enhance the development of leadership qualities in *all* students, whether or

not they hold a formal leadership position. A key assumption is that leadership is about

effecting change on behalf of others and society. The model also assumes that leadership

is a process, leadership is collaborative, and that service is a powerful vehicle for

developing leadership skills. The model outlines a leadership process that incorporates

the principles of equity, inclusion, and service. The two primary goals of the model are to

enhance student learning and development, particularly in the areas of self-knowledge

and leadership competence, and to facilitate positive social change at the institution or in

the community. The model examines leadership development from the perspectives of

individual, group, and community/society.

Figure 1: The Social Change Model

-Collaboration
-Common Purpose
-Controversy with
 civility

Group Values

-Consciousness of
 self
-Congruence
-Commitment

-Citizenship

Individual Values   **Societal/Community Values**
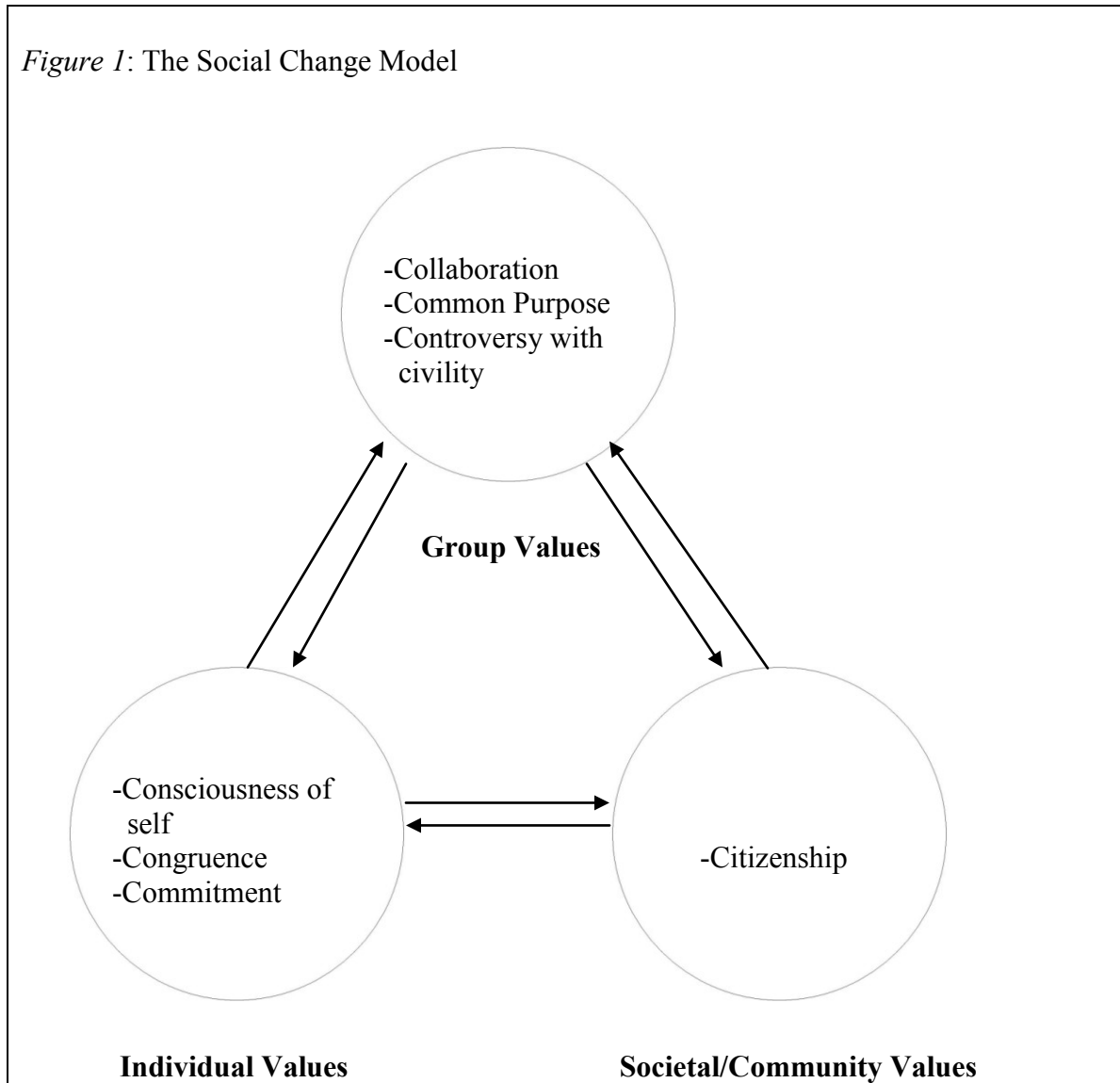
The research team identified seven core values for the model, referred to as the "7

C's" of leadership development for social change. Connected to the individual

perspective are Consciousness of Self, Congruence, and Commitment. Collaboration,

Common Purpose, and Controversy with Civility relate to the group perspective, and

Citizenship is core to community/society. Change is the value "hub" that provides

meaning and purpose to the seven core values. Interaction occurs between the individual, group and community/society levels and becomes a reciprocal process as reflection and active learning occur on a continuous cycle. It starts with the individual becoming more self-aware, to then begin interacting with others to ultimately effect change in community/society.

The model is intended to serve as a foundation for college student leadership development programs in order to "prepare a new generation of leaders who understand that they can act as leaders to effect change without necessarily being in traditional leadership positions of power and influence" (HERI, 1996, p. 12).

Integration of Civic Themes in Leadership Minor Curriculum

The core courses in the minor program integrate a significant majority of the civic skills and outcomes outlined previously in this chapter. The first and second courses in the sequence examine personal development (cultural self-awareness), leadership frameworks, group and team dynamics, communication, vision/mission/goals, conflict, ethics and values, multicultural awareness and cultural ethnicity, service learning, and social change in the context of community. In the introductory course, the emphasis is on cultural self-awareness. Students reflect on their life experiences to better understand how they think and behave as personal leaders. They are guided to think critically through reflective journals, exercises that examine competing views on leadership, written assignments, and class discussions on the reading assignments. At the end of the introductory course, students articulate and present their own personal definition of what it means to lead and the role of personal responsibility in leadership. In this introductory

course, students also learn basic strategies for tackling social issues. Students work in small groups on a social change project where they identify an issue, conduct research, and develop an action plan.

The second course in the sequence focuses on the next step of interacting with others to effect change in the context of community, and students are prompted to think about leadership for the common good. A social change topic is identified for the course and emphasis is placed on the importance of conducting research before entering into community-based work. Students learn about the issue through course content, conduct interviews with community members and associated stakeholders, and analyze the data. The next step involves the examination of the complex dynamics surrounding social issues such as leadership, power, organizational structures, policies, and issues of sustainability. Through this course, students acquire skills to conduct research and stakeholder/context analysis. They begin to learn that civic and public engagement involves individuals working together with other citizens, and it is a process of continual development.

In the next course, students leave the classroom to apply what they have learned in the first two courses in community contexts beyond the university. It is a service-learning course nuanced with the challenge of making systemic progress toward a larger community-driven goal. This course is based on sustained partnerships with community organizations and local schools. Students have the option to choose from involvement in a community which is currently home to many East African immigrants, coaching youth action projects in local schools, and developing social entrepreneurship projects.

Students begin the field experience by conducting research for their respective contexts. They then leave the classroom once per week to actively engage in their sites. Instructors facilitate in-depth structured reflection through writing, blogs, and class discussions. The reflection focuses on translating previous course concepts, topics of social responsibility, and the reciprocal nature of community engagement. Students in the minor often report that this experience is the one that bridges the gap between learning about leadership and civic engagement to actually becoming civically engaged leaders in their communities.

The final course in the minor sequence focuses on leadership in a global context. Students conduct research on global issues related to their major or field of study. They begin by conducting interviews with individuals outside the United States and by conducting a review of professional associations to identify the global issues of concern in their respective professional fields. Students then conduct a literature review to create a comprehensive view of the global issues they will face as they leave the university and enter into the workforce and communities.

The integration of civic themes in the minor curriculum using traditional teaching methods would be very challenging. The original team that created the minor recognized this and made an intentional decision to rely on teaching and learning strategies that engage students and provide opportunities for practical experience and application.

Active Learning Methods in Leadership Minor Curriculum

As presented earlier in this review, Reeher and Cammarano (1997) claim that in order for students to learn about civic skills, active learning must take place within an analytical and critically reflective context, teachers must get to know their students on an

individual basis, and teachers must view students as future citizens, not simply as the future workforce. Minor classes are limited to 30 students so instructors are able to develop a relationship with each student and in order to create a sense of community in the classroom. As community develops, students begin to hold each other accountable to the group. Students are frequently prompted to engage in critical reflection on their own ideas, the ideas of their peers, and the material presented through readings and instruction. Course content is often connected to the real life situations of the students and/or draws upon actual events on campus, in the community, or the larger global context. Lecture is utilized only when the content cannot be delivered through more active or experiential methods.

The second course and the field experience course focus on problem-solving and collaborative learning. Students work on real life community issues and are required to conduct research, analyze the problem, identify key stakeholders, incorporate course content, and develop an action plan that focuses on a solution or a step towards change. Work in a community context outside the classroom requires the use of several civic skills, including the willingness to engage in public issues, ability to analyze information, collaboration, stakeholder analysis, evidence and argument, communication, cultural awareness, and conflict resolution.

The service learning approach is utilized when students apply the learning from the first two courses and actually leave the classroom to engage in communities outside the university and provide a service to the community. Particular emphasis is placed on structured reflections of those experiences in order for students to understand concepts

related to social responsibility, and to understand the reciprocal learning that occurs with authentic community engagement.

Conclusion

Citizenship education has long been recognized as a function of public higher education in the United States but this function has receded over time. The current world has become more interconnected and complex and will require future leaders that are equipped for responsible participation in a diverse, democratic society. The literature on citizenship education sends a clear message. It is time to reinvigorate the mission of public higher education. The literature highlights integration of civic themes in curriculum and utilization of active learning methods as strategies to promote the development of civic knowledge, skills, and attitudes. The example of the leadership minor program provided at the end of this chapter illustrates how these strategies might be implemented using the Social Change Model for Leadership Development.

CHAPTER THREE

Conceptual Framework and Research Design

This study examined in-class curricular strategies that promote the development of civic knowledge, skills, and attitudes among undergraduate students enrolled at the University of Minnesota–Twin Cities campus. The conceptual framework for the study emerged from the literature review on the civic mission of public higher education outlined in chapter two. The conceptual framework illustrates the relationship between curricular strategies and civic outcomes and identifies the variables that were included in this study. This chapter provides an overview of the conceptual framework, a description of the variables included in the study, and methodology.

Conceptual Framework

The conceptual framework for this study included independent variables relating to civic themes and active learning methods. The literature review highlighted the integration of civic themes into the curriculum as a strategy for promoting citizenship education. The themes that consistently appeared in the literature review included critical thinking, problem solving, respect for differences/the ability to work with individuals different from ourselves, and social responsibility. Ehrlich (2000) claimed that in addition to civic education, democratic principles are grounded in moral principles. Moral reasoning also appeared as a common theme in the literature review.

Effective integration of civic learning into the curriculum requires that students be emotionally and intellectually engaged in their learning through active learning methods (Colby, Ehrlich, Beaumont, & Stephens, 2003). Some of the effective active learning methods that emerged from the literature review included experiential learning, service learning, problem-based learning, and collaborative learning. These teaching methods go beyond traditional approaches such as lecture and discussion. The conceptual framework includes active learning methods as an independent variable. The specific learning strategies are included in the discussion of the framework because they emerged as examples of active learning in the literature review.

The undergraduate leadership minor at the selected institution integrates civic themes in the curriculum, and utilizes active learning methods in order to promote the civic knowledge, skills, and attitudes among undergraduates so enrollment in a leadership minor course is the final independent variable.

The dependent variables in the framework are based on the Social Change Model of Leadership Development (HERI, 1996). The Social Change Model of Leadership Development was selected because the desired outcomes of the model correspond to the civic knowledge, skills, and attitudes that emerged from the literature review. In addition, the model was created for the college student population and frames leadership in the context of social change and citizenship. Scales were developed, tested, and used in administration of the Multi-Institutional Study of Leadership in 2006 and 2009 (Dugan & Komives, 2007; Multi-Institutional Study of Leadership, 2009). Over 50,000 students from 52 colleges and universities participated in the 2006 study, and 338,732 students

from 101 institutions in 2009. A detailed discussion of the scales will follow in the

section on methodology.

Figure 2: Original Conceptual Framework

INDEPENDENT VARIABLES
1. Problem solving
2. Ability to relate with individuals different from ourselves
3. Social responsibility
4. Active learning methods:
   -Experiential learning
   -Service learning
   -Problem-based learning
   -Collaborative learning
5. Enrollment in leadership minor courses

DEPENDENT VARIABLES-
Consciousness of self
-Congruence
-Commitment
-Collaboration
-Common purpose
-Controversy with
 civility
-Citizenship
-Change

CONTROL VARIABLES

-Pre-college experiences
-Age
-Gender
-Race/ethnicity
-Class year
-College of enrollment
-Selected college experiences

This study examined the relationship between the selected in-class curricular

strategies and the desired outcomes described in the Social Change Model. The

conceptual framework is presented in Figure 2. The control variables included pre-

college experiences, age, gender, race/ethnicity, class year, college of enrollment, and other selected college experiences. Each of the variables is discussed in the section that follows.

Independent Variables

The first set of independent variables are themes that emerged from the literature as being important attributes for responsible and effective citizenship. These include: (1) *Problem solving* (Battistoni, 2006; Bok, 2006; Boyte & Kari; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Jacoby, 2009), (2) *Ability to relate with individuals different from ourselves* (Berstein & Cock, 1997; Bok, 2006; Boyte & Kari, 2000; Colby, Ehrlich, Beaumont, and Stephens, 2003; Jacoby, 2009; Kezar, 2005), and (3) *Social responsibility*-- individuals understand their role in a larger social system and their responsibility for social problems (Bok, 2006; Colby, Ehrlich, Beaumont, & Stephens, 2003; Jacoby, 2009).

Two additional themes were prominent in the literature but are not included in the research design for the conceptual framework: (1) *Critical thinking* (Battistoni, 2006; Bok; Boyte & Kari, 2006; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Kezar; 2005) and (2) *Moral reasoning* (Bok, 2006; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000). Although these two variables are essential to the promotion of civic knowledge, skills and attitudes among undergraduates, their inclusion in this study presented a significant challenge regarding scope in this research design. There is a vast body of literature associated with moral reasoning that is distinct from the civic frame of citizenship education. The Socially Responsible Leadership Scale-

Revision 2 (SRLS-R2) used for the dependent variables requires the use of all 71 items.

Any attempt to adopt existing scales to measure critical thinking or moral reasoning

would result in an instrument that would be too long if all items were maintained, or an

instrument that would likely be compromised if the number of items were reduced in an

effort to develop an instrument of reasonable length. In addition to the issue of scope,

there is also a challenge related to a lack of common definition of critical thinking and

moral reasoning across different disciplines. For example, Bok (2006) acknowledges that

there is no universally accepted definition of "critical thinking."

The introduction to the conceptual framework stated that effective integration of

civic learning into the curriculum requires that students be emotionally and intellectually

engaged in their learning through active learning methods (Colby, Ehrlich, Beaumont, &

Stephens, 2003). The conceptual framework identifies participation in four *active*

learning methods. The following are specific active learning methods that emerged from

the literature, (a) *experiential learning*-- based on learning as a cycle that begins with

experience, continues with reflection, and leads to action. Experiential learning is also

based on a philosophy that one learns best by doing (Walter & Marks, 1981), (b) *service*

learning-- helping students develop social responsibility by involving cognitive processes

such as understanding the meaning and interaction of community and citizenship (Colby,

Ehrlich, Beaumont, & Stephens, 2003; Enos & Troppe, 1996; Kezar & Rhoads, 2001;

O'Grady, 2000), (c) *problem based learning*--students are presented with critical thinking

or real-life problems, shifting the focus of the course to the problems, rather than the text

or assignments (Bean, 2001; Colby, Ehrlich, Beaumont, & Stephens, 2003), and (d)

collaborative learning--a pedagogical approach in which the instructor serves as a coach and students work in small groups or teams (Bean, 2001, Colby, Ehrlich, Beaumont, & Stephens, 2003. While the active learning methods incorporate elements of experiential learning, the survey item associated with experiential learning places explicit emphasis the reflection stage so it is listed as one of four active learning methods.

The final independent variable focuses on the leadership minor program at the University of Minnesota–Twin Cities. The leadership minor is an academic program that integrates civic themes into the curriculum, and utilizes active learning methods in order to promote civic knowledge, skills, and attitudes among undergraduates, so (5) *enrollment in a leadership minor course* is an independent variable.

Control Variables

The first group of control variables is *selected pre-college experiences*. There is a need to isolate any pre-college experiences related to civic participation in order to examine student outcomes based on exposure to the college environment (Astin, 1991). Astin's Inputs-Environments-Outputs (I-E-O) model presumes that student outcomes are affected by educational policies and practices in the institutional environment and pre-college student input measures. Astin states,

> Taken together, student input and student outcome data are meant to represent student development – changes in student's abilities, competence, knowledge, aspiration, and self-concept over time…knowing what particular environmental experiences each student has had helps us to understand why some students develop differently than others (p. 21).

Astin asserts that student inputs are necessary in examining the relationship between environments and student outcomes. He explains that the basic purpose of the I-E-O design is the ability to correct or adjust for student input differences in order to get a "less biased estimate of the comparative effects of different environments on outputs" (p. 19). The pre-college control variables in this research study include involvement in selected experiences associated with civic engagement while in high school. The experiences include leadership positions, community service, and service learning, including service learning courses. The specific questions that will be used to obtain the data are outlined in the following section on methodology.

National results from the 2006 Multi-Institutional Study of Leadership (MSL) revealed that women scored higher than men on all the Social Change Model scales except for "change" so *gender* is included in the conceptual framework as a control variable (Dugan & Komives, 2007). There were also significant differences related to race/ethnicity on six of the seven Social Change Model values in the 2006 MSL Study so *race/ethnicity* will be included in the framework as a control variable. For example, African American respondents scored higher on the Social Change Model values while Asian Americans scored the lowest.

Age is identified as a control variable based on a hypothesis that level of maturity and experience will have an impact on the level of development of civic knowledge, skills, and attitudes. In addition to level of maturity and experience related to age, *class year* is also included based on an assumption that increased exposure to the college environment will also have an impact on the civic outcomes. *College of enrollment* is included as a

control variable because some college majors are more closely aligned with the goals of citizenship education, some colleges promote leadership and citizenship development with their students more than others (in and out of the classroom), and the availability of time to participate in campus experiences beyond the required curriculum varies by major. It is hypothesized that majors in which content is fixed and cumulative, and requires mastery of logically structured problems would have stronger roots in more traditional teaching methods such as lecture.

The final group of control variables is *selected undergraduate experiences*. "Preparing undergraduates for citizenship in a democracy – one of the oldest aims of education – occurs not only in course on political science or American history but also in student government, dormitory elections, young Democrat and Republican clubs, and many other extracurricular settings….what students study in class often affects the value of their extracurricular experience, which in turn can enhance what they learn in class" (Bok, 2006, p. 53). The *selected undergraduate experiences* include involvement in student organizations, leadership positions, co-curricular leadership programs, community service, and service learning, including service learning courses, and study abroad. Results from the national data-set of the 2006 MSL revealed that any level of involvement in campus clubs and organizations demonstrated significantly higher scores across all the social change model values (Dugan & Komives, 2007). This study also demonstrated that participation in community service had a positive influence on the outcomes of Citizenship and Collaboration. Participation in any type of formal leadership program resulted in higher outcomes for Collaboration, Common Purpose, Controversy

with Civility, and Citizenship. Being in a positional leadership role had a positive

influence on all outcomes. In regard to study abroad, data from the 2006 MSL for the

selected institution demonstrated statistically significant differences for students who

studied abroad. These students scored higher on the social change outcomes. The

specific questions that were used to obtain the data are outlined in the following section

on methodology.

Dependent Variables

The dependent variables are the desired outcomes as defined by the Social Change

Model of Leadership Development (HERI, 1996). A detailed description of the model

was provided in chapter two. The definitions of the dependent variables are based on the

definitions in the model,

> *Consciousness of Self* is being aware of the beliefs, values, attitudes, and emotions
>
> that motivate one to take action. *Congruence* refers to thinking, feeling and
>
> behaving with consistency, genuineness, authenticity, and honesty toward others.
>
> *Commitment* is the psychic energy that motivates the individual to serve and that
>
> drives the collective effort. Commitment implies passion, intensity, and duration.
>
> It is directed toward both the group activity as well as the intended outcomes.
>
> *Collaboration* is to work with others in a common effort. *Common Purpose* means
>
> to work with shared aims and values. It facilitates the group's ability to engage in
>
> collective analysis of the issues at hand and the task to be undertaken. *Controversy*
>
> *with Civility* recognizes two fundamental realities of any creative group effort: that
>
> differences in viewpoint are inevitable, and that such differences must be aired

openly but with civility. *Citizenship* is the process whereby the individual and the

collaborative group become responsibly connected to the community and the society

through the leadership development activity. To be a good citizen is to work for

positive change on behalf of others and the community. *Change* is the value "hub"

which gives meaning to the 7 C's. Change is the ultimate goal of the creative

process of leadership—to make a better world and a better society for self and

others (p. 22).

Methodology

This section describes the research methodology for this study. The rationale for

creating a survey instrument is provided and includes an explanation of the scales that

were identified or developed for each independent, control, and dependent variable.

Descriptions are provided for the survey setting, results and corresponding revisions from

a pilot survey, final survey sample and administration, followed by the outline for data

analysis.

Survey Instrument

There are many reliable instruments, such as Cooperative Institutional Research

Program surveys, the National Survey on Student Engagement, the Multi-Institutional

Study of Leadership survey, Preparing Students for a Diverse Democracy survey, and the

Student Experience in the Research University survey, that provide data on some of the

variables in this study, but all fall short of encompassing the entire conceptual framework

or do not fit the context of this study. A research method designed to analyze results

from respondents who participated in multiple surveys at the same time would likely result in an extremely low participation rate. Therefore, an instrument was created for this research study to include all independent and dependent variables outlined in the conceptual framework. A literature review was conducted to identify existing scales as appropriate, and to develop new scales as needed.

Survey Scales – Independent Variables

A review of existing surveys and literature on scales related to the topic of this research was conducted to determine if scales existed for the independent variables (Bringle, Phillips, & Hudson, 2004; Compendium of Assessment and Research Tools, *n.d.*): problem solving, ability to relate with individuals different from ourselves, social responsibility, and active learning methods. The search did not reveal scales that fit with the conceptual framework of this study. However, related questions from existing surveys and themes/definitions of the independent variables were collected and recorded during the review process (see Appendix A). Surveys included the National Survey on Student Engagement (2008), Cooperative Institutional Research Project (CIRP) Freshman Survey (2008), the Multi-Institutional Study of Leadership Survey (2009), the University of California Undergraduate Experience Survey (2008), and the Civic Responsibility Survey: K-12 Students Engaged in Service Learning (1998). The Civic Responsibility Survey was developed by A. Furco, P. Miller, and M.S. Ammon at the Service Learning Research & Development Center, University of California, Berkeley. In addition to surveys, information for scales was also obtained from the Association of American Colleges and Universities (AAC&U). AAC&U is sponsoring the *VALUE*

project which focuses student achievement related to learning outcomes in undergraduate education. A group consisting of AAC&U staff, advisory board members, and teams of faculty and academic professionals have drafted rubrics for selected outcomes. Items from the value rubrics for civic engagement, ethical reasoning, problem solving, teamwork, and critical thinking were gathered and added to a list to create questions for the independent variables.

A group of 11 experts that included professional staff from the selected university, Ph.D. students in Higher Education, and leadership minor instructors were assembled to sort through the related items and provide feedback on how to develop survey questions for the independent variables, including *ability to relate with individuals different from ourselves, problem solving,* and *social responsibility*. The individuals involved in this process and the exercise, including items from existing surveys, are provided in Appendix A. Each participant reviewed the list of items for each variable to combine or group questions and items on the list that related to one another and record any missing items or themes. Individuals then shared their responses and engaged in a full-group discussion for each variable. Individual responses and summary notes from the full-group discussion were recorded (see Appendix B). Based on feedback from this process, the preliminary questions for the three independent variables are listed in Table 1.

Table 1

Independent Variable Items

_____

Variable Items

_____

 (Variable: *Ability to relate with individuals different from ourselves)*

Acknowledge personal differences

Appreciate the world from someone else's perspective

Interact with someone with views that are different from your own

Discuss and navigate controversial issues

(Variable: *Problem Solving*)

Define an issue or challenge

Identify possible solutions for an issue or challenge

Implement a solution to an issue or challenge

(Variable: *Social Responsibility*)

Reflect on the solution of an issue or challenge

Think about or conduct research on community or social issues

Reflect on community or social issues as a shared responsibility

Reflect on your individual responsibility for community or social issues

Act on community or social issues

_____

Note. Coded on four-point scale including how often have you been asked in the classroom (1) never, (2) sometimes, (3) often, (4) very often.

Items for the independent variable active learning were based on descriptions of specific active learning methods described previously in the literature review and the introduction to the conceptual framework in this chapter (see Appendix D). Students were asked to indicate whether or not they had been exposed to these types of active learning methods in classes within their major, 1 = no and 2 = yes. These were re-coded for data analysis as 0 and 1, respectively.

Regarding the independent variable *enrollment in leadership minor courses*, respondents were asked to indentify if they had been enrolled in a leadership minor course at the selected institution. The course names are listed and respondents indicated 1 = no, or 2 = yes for each course, and these were re-coded as 0 and 1, respectively, for data analysis. The courses include: (1) Personal Leadership in the University, (2) Leadership, You, and Your Community, (3) Leadership Minor Field Experience, and (4) Leadership for Global Citizenship.

Survey Items – Control Variables

A significant portion of the conceptual model is based on the Social Change Model of Leadership Development and the corresponding Socially Responsible Leadership Scale – Revision 2. The format for the questions to obtain data on the control variables was based primarily on the 2009 Multi-Institutional Study of Leadership Survey Instrument, a project of the National Clearinghouse for Leadership Programs in conjunction with the Center for Student Studies. Respondents were asked to indicate how often they engaged in these activities, before they started college, on a continuum including 1 = never, 2 = sometimes, 3 = often, and 4 = very often. To obtain data on *pre-*

college experiences, respondents were asked to indicate how often they engaged in the following activities before they started college (1) held a leadership position, office, or role in a student club, organization, or sport; (2) participated in community service, (3) participated in a religious organization, and (4) participated in a service learning activity or course. The scale includes 1 = never, 2 = sometimes, 3 = often, and 4 = very often.

In an open-ended format, respondents record their *age*. Class year included 1 = Junior, 2 = Senior (4th year and beyond), 3 = unclassified. *Gender* was identified as 1 = Female, 2 = Male, 3 = Transgender, 4 = Genderqueer, 5 = Decline to state, and 5 = Other. The options for this demographic variable were based on recommendations from the Office of Human Resources and the Gay, Lesbian, Bisexual, Transgender, Ally (GLBTA) Programs office at the University of Minnesota. *Race/ethnicity* included: (1) White/Caucasian; (2) Asian, Asian American, or Pacific Islander; (3) Black, African, or African American; (4) Hispanic, Chicano, Latino, or Hispanic American; (5) Middle Eastern, Arab, or Arab American; (6) Native American, American Indian, or Alaskan Native; (7) Other. For purposes of data analysis, Caucasian was coded as 0 and other categories were coded as 1.

College of enrollment included those programs that award baccalaureate degrees at the selected institution. These include Liberal Arts, Biological Sciences, Design, Education and Human Development, Food, Agriculture and National Resource Sciences, Nursing, Sciences and Engineering, and the School of Management. For regression analyses, dummy coding was implemented for college of enrollment with Liberal Arts = 0 as the base group, and other colleges of enrollment = 1. The other colleges were listed

as Biological Sciences, School of Management, Education and Human Development,

Sciences and Engineering, and "other." The "other" category combined Design, Food,

Agriculture and National Resource Sciences, and Nursing given the small percentage of

respondents for these three colleges.

To obtain data on *selected college experiences*, respondents were asked to indicate

how often they engaged in the following activities during their college experience (1)

involvement in a college club, organization, or sport, (2) held a leadership position,

office, or role in a college club, group or sport, (3) participated in a non-credit bearing

leadership programs, (4) study abroad, (5) community service, (6) participated in a

religious organization, and (7) service learning, including service learning courses. The

scale included 1 = never, 2 = sometimes, 3 = often, and 4 = very often.

The items for the independent and control variables were added to the scales for the

existing Socially Responsible Leadership Scale – Revision 2 (SLRS-R2) to complete a

list of items for the draft pilot survey (see Appendix C).

Survey Scales – Dependent Variables

The Socially Responsible Leadership Scale –Revision 2 (SRLS-R2) provides the

scales for the dependent variables and was used with permission from the National

Clearinghouse for Leadership Programs located at the University of Maryland. The

original SRLS was developed by Tracy Tyree (1998) in her doctoral dissertation at the

University of Maryland. The purpose of her study was to develop an instrument that

operationalized the Social Change Model of Leadership Development (HERI, 1996).

The eight constructs of the model served as constructs to develop items for the

instrument: Consciousness of Self, Congruence, Commitment, Common Purpose, Collaboration, Controversy with Civility, Citizenship, and Change. Tyree relied on DeVellis' (1991) steps for scale development: (1) determine clearly what it is you want to measure; (2) generate an item pool; (3) determine the format for measurement, (4) have initial item pool reviewed by experts, (5) consider inclusion of validation items, (6) administer items to a development sample, (7) evaluate the items, and (8) optimize scale length.

Tyree began by working with a research team of four doctoral students and a faculty member to generate a pool of 291 items around the eight constructs. Ordinal measurement was deemed most appropriate as the type of measurement and a 5-point scale as the measurement format. The response continuum included 1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, and 5 = strongly agree. The first phase of data collection was a rater exercise to determine how well the items measured the relevant construct in an effort to examine content validity of the instrument. Expert reviewers included thirteen members of the working group that developed the Social Change Model, and six student affairs professionals from the University of Maryland that were familiar with leadership and college student development theories. In addition to the experts, twelve undergraduate students at the University of Maryland were recruited to participate in the review of items. Frequency distributions were created to analyze how often each rater group and all raters together placed an item in the same construct. A 67 percent level of agreement among the raters was required for an item to remain on the scale, which resulted in a 202-item instrument.

The next phase included two administrations of the instrument in a pilot study. The instrument was administered two times, four weeks apart. The instrument was completed by 101 students in the first administration, and by 80 students in the second administration. Internal consistency reliability coefficients were calculated for each construct using Cronbach's coefficient alpha. Tyree went through a process of removing items whose absence increased the coefficient alpha in order to determine the final set of items. The consistency of repeated measures over time was analyzed using data from students who completed both administrations of the pilot instrument. Factor analysis was conducted and items that were absent from the first factor in the analysis of either data set were eliminated. The next step was to examine the level of relationship between the social desirability items and the socially responsible leadership items using bivariate correlation coefficients. Items with a significant correlation at less than .01 were eliminated. The result was a 103-item instrument for the final study.

Simple random sampling was used to identify 675 students at the University of Maryland to participate in a paper-based version of the revised instrument for the final study. The response rate was 50.7 percent. Cronbach's alphas were calculated again to assess reliability of the instrument. In addition to factor analysis, the sum of scores for all items in each construct was correlated with each item individually to produce a correlation coefficient to determine if a relationship existed between an item and other items in the construct. The Cronbach alpha coefficients for this final study are reported in Table 2.

Table 2

Reliability Levels for the Socially Responsible Leadership Scale

	Study			
SRLS Construct	Tyree	Dugan	MSL	MSL
	(1998) 103 Items	(2006) 68 Items	(2006) 68 Items	(2009) 71 Items
Consciousness of Self	.82	.79	.79	.80
Congruence	.82	.79	.80	.85
Commitment	.83	.84	.83	.84
Collaboration	.77	.82	.82	.83
Common Purpose	.83	.80	.82	.85
Controversy with Civility	.69	.71	.77	.75
Citizenship	.92	.90	.77	.91
Change	.78	.82	.81	.83

Results from subsequent studies using the SRLS demonstrated consistent reliability (Dugan, 2006a; Dugan, 2006b; Rubin, 2000) with Cronbach alphas ranging from .83 for *Commitment* to .76 on *Controversy with Civility* (Dugan & Komives, 2007). Based on results of these studies, Cara Appel-Silbaugh, doctoral student at University of Maryland, and John Dugan, Co-Principal Investigator of the 2006 Multi-Institutional Study for Leadership and Coordinator for Student Involvement and Leadership at the University of Maryland reduced the 103-item instrument prior to pilot testing to 68 items. The same

number of items remained after the pilot test resulting in the 68-item SRLS-R2 (Dugan,

2006c). Three items were added for the 2009 Multi-Institutional Survey on Leadership.

The 71-item SRLS-R2 was used in this research (see Appendix C).

   The 2006 Multi-Institutional Study of Leadership (MSL), a large-scale survey project

of the National Clearinghouse for Leadership Programs, utilized the SRLS-R2. The

survey was administered on 52 campuses in the United States representing different

Carnegie classifications, size, and institutional control. Over 50,000 respondents

completed the survey. The Center for Student Studies (CSS), located in Ann Arbor,

Michigan, is an independent research organization specializing in multi-campus studies

and was contracted to administer the 2009 Multi-Institutional Study of Leadership. The

2009 Multi-Institutional Study of Leadership (MSL) was administered on 101 campuses

and over 330,000 respondents completed the survey. John Dugan, Co-Principal

Investigator for both MSL studies provided reliability levels for the 2006 and 2009

studies upon request in December 2009. These reliability levels, in addition to the

reliability levels from the original SRLS (Tyree, 1998), and the SLRS-R2 (Dugan,

2006c), are shown in Table 2.

   Table 3 contains a complete list of scale names and items included in each scale for

the SLRS-R2 (Tyree, 1998; Dugan, 2006b; Dugan 2006c).

Table 3

Items by Scale for the Socially Responsible Leadership Scale – Revision 2

Scale   Item

Consciousness of Self
- I am able to articulate my priorities
- I have low self esteem
- I am usually self confident
- I know myself pretty well
- The things about which I feel passionate about have priority in my life
- I could describe my personality
- I am comfortable expressing myself
- I can describe how I am similar to other people
- Self-reflection is difficult for me

Congruence
- My behaviors are congruent with my beliefs
- It is important for me to act upon my beliefs
- I think it is important to know others peoples' priorities
- Being seen as a person of integrity is important to me
- My behaviors reflect my beliefs
- I am genuine
- It is easy for me to be truthful

Commitment
- I am willing to devote the time and energy to things that are important to me
- I stick with others through difficult times
- I am focused on my responsibilities
- I can be counted on to do my part
- I follow through on my promises
- I hold myself accountable for responsibilities I agree to

Collaboration
- I am seen as someone who works well with others
- I can make a difference when I work with others on a task
- I actively listen to what others have to say
- I have helped to shape the mission of the group

Table 3 (continued)

_____

Scale   Item

_____

Collaboration (continued)
- I enjoy working with others toward common goals
- Others would describe me as a cooperative group member
- Collaboration produces better results
- My contributions are recognized by others in the groups I belong to
- I am able to trust the people with whom I work

Common Purpose
- I am committed to a collective purpose in those groups to which I belong
- It is important to develop a common direction in a group in order to get anything done
- I contribute to the goals of the group
- I think it is important to know other people's priorities
- Common values drive an organization
- I know the purpose of the groups to which I belong
- I work well when I know the collective values of the group
- I support what the group is trying to accomplish

Controversy with Civility
- I am open to others' ideas
- Creativity can come from conflict
- I value differences in others
- Hearing differences in opinions enriches my thinking
- I struggle when group members have ideas that are different from mine
- Greater harmony can come out of disagreement
- I respect opinions other than my own
- I am comfortable when someone disagrees with me
- When there is a conflict between two people, one will win and the other will lose
- I am comfortable with conflict
- I share my ideas with others

Citizenship
- I believe I have a responsibility to my community
- I give time to making a difference for someone else
- I work with others to make communities better places

(continued)

Table 3 (continued)

_____

Scale   Item

_____

Citizenship (continued)
- I have the power to make a difference in my community
- I am willing to act for the rights of others
- I participate in activities that contribute to the common good
- I believe I have a civic responsibility to the greater public
- I value the opportunities that allow me to contribute to my community
- It is important to me to play an active role in my communities
- I volunteer my time to the community
- I believe my work has a greater purpose for the larger community

Change
- Transition makes me uncomfortable
- I am comfortable initiating new ways of looking at things
- Change brings new life to an organization
- There is an energy in doing something a new way
- Change makes me uncomfortable
- New ways of doing things frustrate me
- I work well in changing environments
- I am open to new ideas
- I look for new ways to do something
- I can identify between positive and negative change

_____

Setting

This research study examined the impact of curricular strategies on the development

of civic knowledge, skills, and attitudes among undergraduates at a large public

university. The study institution was selected because of the well-developed

undergraduate leadership minor program aimed at achieving the civic goals that are

central to this study. It is a large public university with very high research activity

according to the Carnegie classifications. Some authors in the literature review focused

on the need to renew the civic mission of the American research university (Bok; 2006;

Checkoway, 2001; Hollander, 2011). Bok states,

> Higher education organizations such as AAC&U have made a more helpful
>
> contribution to the quality of education by publishing short monographs
>
> summarizing relevant research about teaching. Although these essays are useful,
>
> no one can be sure how much impact they have had on the policies and practices of
>
> colleges. There is little indication that the publications have penetrated very far
>
> into curriculum review at large public universities (p. 329).

In addition to the Carnegie classification as a university with very high research activity,

the study institution is also a land-grant institution located in a mid-west urban setting.

Pilot Study

An exploratory pilot study was administered on June 24, 2010 to detect any problems

with the survey instrument and to rectify them prior to administration with the full

random sample. Data from this pilot was not used in the final data analysis for this

research study. The survey (see Appendix D) was administered to 28 students who were

Orientation Leaders at the study institution. The students were juniors and seniors at the

time of survey pilot administration so met the population parameter of 60 or more credits.

The pilot group included 15 females and 13 males. Students represented all colleges of

enrollment with the exception of the College of Food, Agriculture, and Natural Resource

Sciences. Twelve students indicated they were enrolled in a major that focused on "hard"

sciences and 16 indicated enrollment in a "soft" science. Age ranged from 19 to 22.

Racial or ethnic identification included White/Caucasian (20), Asian/Asian American

Pacific Islander (4), Black, African, African American (1), Hispanic, Chicano, Latino, or

Hispanic American (3), Middle Eastern, Arab, Arab American (0), Native American,

American Indian, or Alaskan Native (0), and Other (1).

Based on the results from the pilot survey, there were revisions to the final survey

which included (1) updated language for college of enrollment from "management" to

"School of Management;" (2) changed response to exposure to active learning items from

1 = no, 2 = yes to 1 = never, 2 = sometimes, 3 = often, 4 = very often in order to be

consistent with the civic themes scale for data analysis; (3) revised the questions

associated with community service and service learning experiences before starting

college to provide more description and to distinguish between in-class and outside of

class participation; (4) deleted participation in a service activity or course from the

section including college experiences because this item is repeated in the active learning

methods section; and (5) the survey items associated with the dependent and independent

variables were evaluated for reliability using Cronbach's alpha to assess internal

consistency. The Cronbach alpha coefficients for the SRLS-R2 items presented in Table

3 were above .70 with the exception of .60 for Controversy with Civility.

Table 4 presents the survey items and reliability level associated with the

independent variable "exposure to civic themes in the classroom." The corrected inter-

item correlations for each independent variable were reviewed to determine what items

would be retained in order to create scales for the final survey and data analysis. For the

civic themes independent variable, the lowest inter-item correlations appeared for

"identify possible solutions for an issue or challenge" (.22), and "implement a solution to

an issue or challenge" (.29). There was a total of four items associated with exploring

issues or challenges" for the civic themes independent variable so it was determined that

the two items with low correlation results could be removed, while retaining the other

two items associated with exploring issues and challenges.

Table 4

Scale Items and Reliability Levels for Independent Variable – Exposure to Civic Themes in the Classroom ($N = 292$)

Scale/items in the scale	Cronbach alpha
Civic theme scale	.83
Acknowledge personal differences	
Appreciate the world from someone else's perspective	
Interact with someone with views that are different from your own	
Discuss and navigate controversial issues	
Define an issue or challenge	
Identify possible solutions for an issue or challenge	
Implement a solution to an issue or challenge	
Reflect on the solution of an issue or challenge	
Think about, or conduct research on community or social issues	
Reflect on community or social issues as a shared responsibility	
Reflect on your individual responsibility for community or social issues	
Act on community or social issues	

The survey items and reliability level associated with the independent variable

"exposure to active learning methods in the classroom" are presented in Table 5.

Table 5

Scale Items and Reliability Levels for Independent Variable – Exposure to Active Learning Methods in the Classroom ($N = 292$)

_____

Scale/items in the scale	Cronbach alpha

_____

Active learning methods scale .36

Worked in a small group or team on a project, assignment, or to solve
a problem that has been assigned by the instructor

Worked in a small team where each member's efforts are necessary
 for group success

Translated subject matter to concrete experiences and reflecting on
those experiences

Learned subject matter through the use of actual problems or issues

Participated in an organized community service activity as part of the
class and reflected or discussed it in class

_____

The Cronbach alpha coefficient for the active learning independent variable was low.

The corrected inter-item correlation results revealed that the item "participated in an

organized community service activity as part of the class and reflected or discussed it in

class" was very low (.02) and that the Cronbach alpha would increase to .74 if this item

were removed. However, this active learning method is frequently cited in the literature

and is supported with empirical evidence (Finley, 2011). A decision was made to retain

this item, and to create a scale for (1) active learning methods, and (2) civic themes for

use in data analysis. In the subsequent reliability analysis presented later in this chapter,

the Cronbach alpha was .71 for the active learning scale used in the final survey. The

final survey instrument is included in Appendix E.

Final Survey Sample

The conceptual framework for this study is based on a premise that students have

taken an undergraduate course at the selected institution. The population for this study

was full time undergraduate students who enrolled at the selected institution as new

freshmann and have completed 60 or more credits by the start of fall semester, 2010. The

survey was administered to a random sample of the defined population. The random

sample was generated by the Office for Institutional Research at the selected institution.

The random sample size was 1,526 based on the formula to calculate sample size and to

accommodate for an estimated 25 percent response rate**.** In order to insure that data were

collected on the independent variable *students enrolled in leadership minor courses*, the

Leadership Minor program office provided identification numbers of students currently

enrolled in the minor courses to the Office for Institutional Research to create a

comparative sample. The size of this comparative sample was 371. The total for the

study was $N = 1,897$.

Survey Administration

The survey (see Appendix E) was administered in a web-based format in fall

semester 2010 utilizing the services of *Student Voice*, a national platform and service

provider for assessment in higher education. *Student Voice* facilitated the email

invitation and follow-up reminders, survey administration, and data collection. The

survey opened on September 19, 2010 and data was collected for a period of four weeks.

Students received an email with an invitation to participate (see Appendix F), a statement

insuring confidentiality, and instructions on how to complete the instrument. Incentives

included 16 - $30 gift cards to Target in an effort to increase participation rates. Three

email follow up letters (see Appendix G) were sent out once per week until the survey

closed on October 15, 2010. Responses were collected in the *Student Voice* system and

then imported into SPSS for coding and data analysis. Individual identifier information

was retained before the data was shared to conduct data analysis for this research study.

Syntax coding for data analysis

Responses to the survey were imported into the statistical analysis program

Statistical Package for the Social Sciences (SPSS), version 16.0. Several steps were

required to create the SPSS syntax used to run the analyses for this study. First, variable

and value labels were assigned to each survey item. The next step involved reverse

coding for the negative items in the SRLS – R2. All items in the survey were then

recoded to begin with 0, rather than 1 (the first value listed in the survey instrument).

The survey was completed by 331 respondents for a 17 percent response rate. After

coding SPSS syntax to account for missing data, the final sample for data analysis was N

$= 292$. There were 233 in the random sample and 59 in the comparative sample which

included students enrolled in a leadership minor course.

Next, items were combined in the SPSS syntax to create scales for data analysis. The first scale included the eight dependent variables defined by the SRLS-R2. See Table 3 for a list of the items associated with each variable. Cronbach alpha coefficients were calculated to assess the reliability for the eight outcome scales. Cronbach alpha levels were all above .76 for the eight outcomes, and levels were consistent with results from previous reliability tests reported earlier in this chapter.

Scales were created for the independent variables including exposure to civic themes in curriculum and active learning methods in the classroom. Whereas the dependent variables in the SLRS-R2 had a five-point scale, the responses for pre-college experiences and experiences during college were on a four-point scale. Finally, scales were created for the control variables including before college experiences, and experiences during college. The items associated with each variable and the corresponding Cronbach alpha are presented in Table 6.

The final step for preparing the SPSS syntax for data analysis involved recoding to run the regression analyses. Gender was recoded using (0) for female and (1) for male. Transgender and genderqueer only had one response each so these were coded as missing data. Race/ethnicity was coded as (0) for Caucasian and (1) for non-Caucasian. Junior class level was coded as (0) and senior class level as (1). The small percentage of respondents indicated "unclassified" for class level was treated as missing data. College of enrollment was a categorical variable so SPSS procedures were used to create dichotomous variables for this regression analysis. Enrollment in the College of Liberal Arts was the base group for comparison. Major focus on hard sciences was coded as (0)

and focus on soft sciences as (1). Respondents that had not enrolled in a leadership minor course were coded as (0) and those that had take a leadership minor course as (1).

Table 6

Scale Items and Reliability Levels (*N* = 292)

Scale/items in the scale	Cronbach alpha
Civic theme scale	**.91**
Acknowledge personal differences	
Appreciate the world from someone else's perspective	
Interact with someone with views that are different from your own	
Discuss and navigate controversial issues	
Define an issue or challenge	
Reflect on the solution of an issue or challenge	
Think about, or conduct research on community or social issues	
Reflect on community or social issues as a shared responsibility	
Reflect on your individual responsibility for community or social issues	
Act on community or social issues	
Active learning methods scale	**.71**
Worked in a small group or team on a project, assignment, or to solve a problem that has been assigned by the instructor	
Worked in a small team where each member's efforts are necessary for group success	

Table 6 (continued)

_____

Scale/items in the scale   Cronbach alpha

_____

Active learning methods scale (continued)   **.71**

Translated subject matter to concrete experiences and reflecting on those experiences

Learned subject matter through the use of actual problems or issues

Participated in an organized community service activity as part of the class and reflected or discussed it in class

Before college experiences   **.57**

Held a leadership position, office, or role in a student club, organization or sport

Participated in community service that was not part of a high school class

Participated in a an organized community service activity as part of a high school class and reflected and discussed it in class

Participated in a religious organization (beyond attending a service)

Experiences during college   **.72**

Involvement in a college club, organization or sport

Held a leadership position, or role in a college club, organization or sport

Participated in a non-credit bearing leadership program

Studied abroad

Participating in community service that was not part of a course

Participated in a religious organization (beyond attending a service)

_____

Data Analysis

Frequencies, means, and cross-tabulations were first computed in order to obtain descriptive information such as percentage responses for each item, participation rates, and/or exposure to items associated with the independent variables, and response information for the control variables. One-way analysis of variance (ANOVA) was used to examine differences among the means and to examine possible relationships among variables. The independent samples *t*-test was used for cases involving two groups. A correlation matrix illustrated possible relationship between the variables in the conceptual framework. For example, how the dependent variables are correlated with one another, how independent variables are correlated with dependent variables, and how the independent variables are correlated with each other. Finally, regression analyses were implemented to separate magnitude of effects among the set of inter-correlated variables. Multiple regression was chosen because it evaluates the individual variables and blocks of variables that best explain values of the dependent variables. The specific procedures used to code selected variables for the regression analyses are outlined in Chapter 4. Each regression analysis included one of eight dependent variables, the three independent variables, and the control variables form the conceptual framework with the exception of age. Several variables in the study were conceptually linked so they were entered in blocks, and in a sequential order to the regression model. The first block included the demographic characteristics of gender and race/ethnicity. The second block included before college experiences. The third block included characteristics assigned to each respondent as part of their enrollment in the university (class level, college of enrollment,

major focus on hard or soft sciences). The independent variables were entered last in order to examine whether or not they added anything to the prediction over and above the blocks that included the control variables. So the fifth block included exposure to civic themes and active learning methods in the classroom, and the final block included exposure to a leadership minor course.

Response Rate and Respondent Characteristics

Table 7 contains the response rate and descriptive characteristics of the survey respondents. Twenty percent of the respondents had enrolled in a leadership minor course by the time they completed the survey. A large majority of the respondents were female (61 percent) and Caucasian (82 percent). Most respondents were enrolled in liberal arts (42 percent), followed by science and engineering (15 percent), biological sciences (13 percent), management (12 percent), education (9 percent), and other (9 percent). Class level included juniors (47 percent) and seniors (49 percent).

The results for the correlation analysis, analysis of variance, and multiple regression are presented in the following chapter.

Table 7

Descriptive Characteristics of Survey Respondents (*N* = 292)

Variable	*N*	%
Group		
Random sample	233	79.8
Enrolled in a leadership minor course	59	20.2
Focus for major field of study		
Hard sciences	160	54.8
Soft sciences	132	45.2
College of enrollment		
Biological Sciences	37	12.7
Design	3	1.0
Education and Human Development	27	9.2
Food, Agriculture, and Natural Resources	19	6.5
Liberal Arts	122	41.8
Nursing	5	1.7
School of Management	36	12.3
Science and Engineering	43	14.7
Current class level		
Junior	136	46.6
Senior (4th year and beyond)	142	48.6
Unclassified	14	4.8
Gender		
Female	179	61.3
Male	111	38.0
Transgender	0	--
Genderqueer	1	.3
Decline to state	1	.3

(continued)

Table 7 (continued)

Variable	*N*	*%*
Racial/ethnic identification		
White/Caucasian	238	81.5
Asian/Asian American/Pacific Islander	30	10.3
Black/African/African American	9	3.1
Hispanic, Chicano, Latino, or Hispanic American	2	.7
Middle Eastern, Arab, Arab American	2	.7
Native American, American Indian, or Alaskan Native	3	1.0
Other	8	2.7

CHAPTER 4

Results

Chapter three indicated the response rates for this study as well as the demographic characteristics of survey respondents. This chapter focuses on the descriptive and analytical findings related to the strategies that promote the development of civic knowledge, skills, and attitudes among undergraduates at the selected public university. The primary independent variables in the study included students' exposure to civic themes in the classroom, active learning methods, and courses in the leadership minor program. Control variables included gender, race/ethnicity, pre-college experiences, academic major (i.e., focus on hard or soft sciences), college of enrollment, current class level, and experiences during college. The original conceptual framework included age as a control variable, but significant differences regarding age did not appear in preliminary analyses so it was not included as a variable in any of the analyses presented in this chapter. Descriptive statistics will be presented first, followed by a correlation matrix that illustrates the relationship between pairs of variables in this study. The independent variable associated with the leadership minor included two groups (i.e., respondents that had enrolled in a minor course, and those that did not) so a *t*-test was performed to determine explore group differences without controlling for any correlated variables. Analysis of variance (ANOVA) was performed for the remaining independent variables to examine relationships with the dependent variables in the study. Finally, a series of eight regression analyses were conducted to determine the overall relationship between

the set of independent variables and each of the eight outcomes of the Social Change

Model of Leadership Development, as well as to identify which of the independent

variables were significant in the regression model.

Descriptive Findings

The survey contained four independent variable scales that were comprised of four or

more items as outlined in the previous chapter. Rather than running analyses with all the

individual items for each scale, the items were combined and the combined scale was

used to perform the analyses described in this chapter. The control variable scales

included pre-college experiences and selected experiences during college. The

independent variable scales included exposure to civic themes in the classroom, and

exposure to active learning methods in the classroom. The dependent variable scales

included the eight outcomes of the Social Change Model of Leadership Development.

Descriptive statistics were computed to compare means and standard deviations for these

scales.

Table 8 contains the means and standard deviations for the pre-college experience,

and experiences during college control variable scales. Respondents were asked to

indicate how often they had participated in the listed activities from a scale of never

(coded 0) to very often (coded 3). In comparing the means for individual experiences

before and during college, the respondents were more involved in clubs, organizations

and sports in high school ($M = 1.83$) and at college ($M = 1.73$), followed by involvement

in community service that was not part of a class in both high school

($M = 1.72$) and college ($M = 1.35$).

Table 8

Descriptive Statistics for Control Variables – Scale Scores for Pre-College Experiences and Experiences During College (*N* = 292)

Scale/ items in the scale	Percent Never	*M*	*SD*
Pre-college experiences		1.46	0.63
Held a leadership position, office, or role in a student club, organization or sport	13.4	1.83	1.06
Participated in community service that was not part of a high school class	8.6	1.72	0.92
Participated in an organized community service activity as part of a high school class and reflected and discussed it in class	31.2	1.10	0.97
Participated in a religious organization (beyond attending a service)	37.3	1.19	1.15
Experiences during college scale		1.05	0.67
Involvement in a college club, organization or sport	12.0	1.73	1.04
Held a leadership position, or role in a college club, organization or sport	39.4	1.16	1.15
Participated in a non-credit bearing leadership program	53.4	0.85	1.07
Studied abroad	68.2	0.55	0.91
Participating in community service that was not part of a course	21.9	1.35	1.00
Participated in a religious organization (beyond attending a service)	62.0	0.64	0.99

Note. Responses coded on a four-point scale including never (0), sometimes (1), often (2), and very often (3).

The pre-college experiences with the lowest means were community service that was part of a high school class ($M = 1.10$) and participation in a religious organization ($M = 1.19$), whereas the lowest means for experiences during college included study abroad ($M = .55$) and participated in a religious organization ($M = .64$).

Exposure to civic themes in the classroom, and exposure to active learning methods in the classroom are two independent variables in the conceptual framework for this study. Respondents were asked to indicate how often they had been exposed in the classroom to the items associated with civic themes, and active learning methods. The response scale ranged from never (coded 0) to very often (coded 3). Exposure to civic themes included 10 items. Table 9 presents the means and standard deviations for exposure to civic themes. There was a difference of .92 from the lowest mean of 1.13 for "act on community or social issues" to a high of 2.05 for "interact with someone with views that are different from your own". The largest variance was present for acknowledge personal difference ($SD = 1.06$).

Exposure to active learning methods included five items. Table 10 presents the means and standard deviations for exposure to civic themes.

Table 9

Descriptive Statistics for Independent Variables – Scale Scores for Exposure to Civic Themes in the Classroom (*N* = 292)

Items in the scale	Percent Never	*M*	*SD*
Civic theme scale		1.63	0.63
Acknowledge personal differences	9.9	1.83	1.06
Appreciate the world from someone else's perspective	3.8	1.76	0.78
Interact with someone with views that are different from your own	2.7	2.05	0.80
Discuss and navigate controversial issues	5.1	1.69	0.83
Define an issue or challenge	3.1	1.97	0.84
Reflect on the solution of an issue or challenge	2.4	1.91	0.82
Think about, or conduct research on community or social issues	16.1	1.37	0.91
Reflect on community or social issues as a shared responsibility	14.7	1.41	0.90
Reflect on your individual responsibility for community or social issues	12.7	1.43	0.89
Act on community or social issues	24.0	1.13	0.89

Note. Responses coded on a four-point scale including never (0), sometimes (1), often (2), and very often (3).

Table 10

Descriptive Statistics for Independent Variables – Scale Scores for Exposure to Active Learning Methods in the Classroom (*N* = 292)

Items in the scale	Percent Never	*M*	*SD*
Active learning methods scale		1.73	0.63
Worked in a small group or team on a project, assignment, or to solve a problem that has been assigned by the instructor	0.0	2.30	0.72
Worked in a small team where each member's efforts are necessary for group success	2.1	2.01	0.81
Translated subject matter to concrete experiences and reflecting on those experiences	5.1	1.51	0.77
Learned subject matter through the use of actual problems or issues	1.0	1.93	0.76
Participated in an organized community service activity as part of the class and reflected or discussed it in class	46.2	0.82	0.92

Note. Responses coded on a four-point scale including never (0), sometimes (1), often (2), and very often (3).

There was a difference of 1.48 from the lowest mean of .82 for participated in an organized community service activity as part of the class and reflected or discussed it in class, to the highest mean of 2.30 for worked in a small group or team on a project, assignment, or to solve a problem that has been assigned by the instructor. The largest

variance was present for "participated in an organized community service activity as part

of the class and reflected or discussed it in class" (*SD* = .92).

Table 11 contains a summary of the eight dependent variable scales included in the

outcomes of the Social Change Model of Leadership Development.

Table 11

Descriptive Statistics for the Dependent Variables – Scale Scores for the Outcomes of the Social Change Model of Leadership Development (*N* = 292)

Variable	Number of items	*M*	*SD*
Consciousness of Self	9	3.04	.45
Congruence	7	3.18	.46
Commitment	6	3.37	.42
Collaboration	9	3.11	.40
Common Purpose	8	3.10	.40
Controversy with Civility	11	2.97	.65
Citizenship	11	2.97	.65
Change	10	2.89	.50

Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

Table 12 presents the means and standard deviations for the 71 items associated with the

eight outcomes. Whereas pre-college experiences and experiences during college had a

four-point scale, the responses for the dependent variables were on a five-point scale.

Respondents were asked to identify their level of agreement on a range from strongly

disagree (coded 0) to strongly agree (coded 4). As the results in Table 12 indicate, there

was a difference of .48 of a scale point from the lowest mean of 2.89 for Change to the

highest mean of 3.37 for Commitment. The mean and standard deviation results reveal

more variation for the Citizenship outcome (*SD* = .65), and a lower level of variation for

Collaboration (*SD* = .40) and Common Purpose (*SD* = .40).

Table 12

Descriptive Statistics for the Dependent Variables – Item Scores for the Outcomes of the Social Change Model of Leadership Development (*N* = 292)

Variable	*M*	*SD*
Consciousness of Self	3.04	.45
I am able to articulate my priorities	3.19	.70
I have low self esteem	2.85	.94
I am usually self confident	2.92	.76
The things about which I feel passionate about have priority in my life	3.41	.68
I know myself pretty well	3.12	.67
I could describe my personality	3.10	.77
I can describe how I am similar to other people	3.07	.58
Self reflection is difficult for me	2.66	.98
I am comfortable expressing myself	2.99	.75
Congruence	3.18	.46
My behaviors are congruent with my beliefs	3.01	.64
It is important for me to act on my beliefs	3.02	.75
My actions are consistent with my values	3.15	.65
Being seen as a person of integrity is important to me	3.45	.64
My behaviors reflect my beliefs	3.13	.63
I am genuine	3.30	.64
It is easy for me to be truthful	3.13	.70

(continued)

Table 12 (continued)

Variable	M	SD
Commitment	3.37	.42
I am willing to devote the time and energy to things that are important to me	3.45	.63
I stick with others through difficult times	3.30	.64
I am focused on my responsibilities	3.12	.63
I can be counted on to do my part	3.47	.56
I follow through on my priorities	3.35	.64
I hold myself accountable for responsibilities I agree to	3.46	.58
Collaboration	3.11	.40
I am seen as someone who works well with others	3.18	.66
I can make a difference when I work with others on a task	3.24	.57
I actively listen to what others have to say	3.26	.58
I enjoy working with others toward common goals	3.12	.65
Others would describe me as a cooperative group member	3.18	.61
Collaboration produces better results	3.02	.70
My contributions to the group are recognized by others in the groups I belong to	2.96	.61
I am able to trust the people with whom I work	2.85	.67
Common Purpose	3.10	.40
I am committed to a collective purpose in those groups to which I belong	3.03	.68
It is important to develop a common direction in a group in order to get anything done	3.20	.69
I contribute to the goals of the group	3.31	.58
I think it is important to know other people's priorities	3.17	.66
I have helped to shape the mission of the group	2.86	.72
Common values drive an organization	2.92	.72
I know the purpose of the groups to which I belong	3.10	.59

(continued)

Table 12 (continued)

_____

Variable	*M*	*SD*

_____

Common Purpose (continued)

I work well when I know the collective values of
the group | 3.12 | .59
I support what the group is trying to accomplish | 3.14 | .58

Controversy with Civility | 2.97 | .65

I am open to other ideas | 3.38 | .59
Creativity can come from conflict | 3.10 | .76
I value differences in others | 3.26 | .71
Hearing differences in opinions enriches my
thinking | 3.35 | .69
I struggle when group members have ideas that
are different than mine | 2.76 | .81
Greater harmony can come out of disagreement | 2.62 | .85
I respect opinions other than my own | 3.31 | .67
I am uncomfortable when someone disagrees w/me | 2.48 | .95
When there is conflict between two people, one
will win and the other will lose | 2.62 | .93
I am comfortable with conflict | 2.60 | .94
I share my ideas with others | 3.15 | .62

Citizenship | 2.97 | .65

I believe I have a responsibility to my community | 3.08 | .84
I give time to making a difference for someone else | 3.05 | .72
I work with others to make communities better
places | 2.84 | .89
I have the power to make a difference in my
community | 3.15 | .68
I am willing to act for the rights of others | 3.11 | .76
I participate in activities that contribute to the
common good | 3.04 | .77
I believe I have a civic responsibility to the
greater public | 2.90 | .88
I value the opportunities that allow me to
contribute to my community | 3.04 | .81

(continued)

Table 12 (continued)

_____

Variable	*M*	*SD*

_____

Citizenship (continued)

It is important to me to play an active role in my
community | 2.87 | .92

I volunteer my time to the community | 2.65 | 1.03

I believe my work has a greater purpose for the
larger community | 2.91 | .86

Change | 2.89 | .50

Transition makes me uncomfortable | 2.60 | .98

I am comfortable initiating new ways of looking
at things | 3.01 | .76

Change brings new life to an organization | 3.03 | .75

There is energy in doing something in a new way | 3.05 | .68

Change makes me uncomfortable | 2.48 | .92

New ways of doing things frustrate me | 2.63 | .80

I work well in changing environments | 2.80 | .71

I am open to new ideas | 3.26 | .60

I look for new ways to do something | 2.91 | .79

I can identify between positive and negative change | 3.12 | .58

_____

Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

Correlations

Pearson product-moment correlations were obtained with a two-tailed test of

significance examined the bivariate relationships between the independent and dependent

variables in the study, and to determine if the variables are correlated in order to conduct

subsequent analyses. The correlation matrix presented in Table 13 reveals that all of the

dependent and independent variables are positively correlated with one another, so

correlations with the outcomes is possible in the analyses that follow.

Table 13

Correlation Matrix for Dependent and Independent Variables (N = 292)

	1	2	3	4	5	6	7	8
DV: Social Change Outcomes								
1 Consciousness of self	1.000							
2 Congruence	.630**	1.000						
3 Commitment	.568**	.724**	1.000					
4 Collaboration	.485**	.609**	.582**	1.000				
5 Common purpose	.472**	.629**	.601**	.730**	1.000			
6 Controversy with civility	.447**	.481**	.389**	.623**	.443**	1.000		
7 Citizenship	.322**	.509**	.426**	.642**	.620**	.504**	1.000	
8 Change	.409**	.453**	.374**	.564**	.432**	.689**	.483**	1.000

(continued)

Table 13 (continued)

	1	2	3	4	5	6	7	8
Independent Variable Categories								
9 Exposure to civic themes	.210**	.267**	.190**	.321**	.300**	.333**	.360**	.266**
10 Exposure to active learning	.151**	.195**	.179**	.363**	.283**	.215**	.304**	.247**
11 Exposure to leadership course	.064	.073	.036	.240**	.176**	.159**	.175**	.132*

DV: Social Change Outcomes	9	10	11
1 Consciousness of self			
2 Congruence			
3 Commitment			
4 Collaboration			
5 Common purpose			
6 Controversy with civility			
7 Citizenship			
8 Change			

Table 13 (continued)

	9	10	11
Independent Variable Categories			
9 Exposure to civic themes	1.000		
10 Exposure to active learning	.488**	1.000	
11 Exposure to leadership course	.171**	.210**	1.000

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

The only correlations that are not significant are between enrollment in a leadership

minor course and the Consciousness of Self, Congruence and Commitment outcome.

Cohen's *d* was used to measure the strength of the relationship between the dependent

and independent variables. There was a very strong relationship between the dependent

variables and exposure to civic themes and active learning methods with $r > .70$ in

calculating the effect size for these two independent variables and each of the eight

dependent variables. The effect size was not as large for "exposure to a leadership minor

course" and the dependent variables that resulted in a statistically significant *p* value.

The results ranged from $r = .13$ for exposure to a leadership minor course and Change, to

$r = .24$ for Collaboration.

Potential challenges associated with multicollinearity needed to be examined prior to

conducting regression analyses. Specifically, the estimate of the impact of one variable

on the dependent variables, while controlling for other variables may not be as precise

when two or more variables are highly correlated. The highest correlation that appeared

in the correlation matrix was .73 for the dependent variables Common Purpose and

Collaboration. The highest correlation among the independent variables was .49 for

"exposure to active learning" and "exposure to civic themes." These results fall below

the level (.85 or above) that would pose concerns associated with multicollinearity in the

regression analyses.

In observing the set of calculations in the correlation matrix, it is apparent that the

values are very spread out. In this case, a median calculation of the center will be more

resistant than the mean in relation to the spread of the distribution. The median value for

the dependent variable by dependent variable portion of the correlation matrix was .49 compared to a mean of .52. The skew statistics were negative indicating a skewed distribution to the left. The kurtosis statistics were positive indicating more peak in the distribution. The median value for the independent variables by the dependent variables was .20 compared to a mean of .21 which is close to a symmetric distribution. Finally, the median value for the independent by independent variables was .21 compared to a mean of .29. The skew statistics were positive revealing a skewed distribution to the right and the kurtosis values were negative indicating a flatter distribution.

Independent Samples t-Test

A primary variable of interest in this study is enrollment in a leadership minor course at the selected institution in order to examine if exposure to a leadership minor course has an influence on the dependent variables, and to determine if there is a difference compared to the random sample of respondents who had not enrolled in a leadership minor course. The independent samples *t-* test was used because this independent variable was comprised of two groups. This analysis was performed to determine univariate differences as a basis for understanding the results of the multivariate regression analyses.

In the survey participants responded to exposure to civic themes the classroom, and exposure to active learning methods on a four-point scale ranging including (0) never, (1) sometimes, (2) often, and (3) very often. The scale for exposure to civic themes in the classroom included 10 survey items.

The first *t*- test examined mean differences between the two additional independent

variables, exposure to civic themes and active learning methods in the classroom, by

enrollment in a leadership minor course.

Table 14

Independent Samples t-test for Independent Variables by Exposure to a Leadership Minor Course (N = 292)

	Random sample (N = 233)		Enrolled in a minor course (N = 59)		
	M	*SD*	*M*	*SD*	*t* value
Exposure to civic themes in the classroom	1.57	0.64	1.84	0.59	-2.96**
Exposure to active learning methods in the classroom	1.67	0.52	1.95	0.56	-3.67***

* p < .05. ** p < .01. *** p < .001.
Note. Responses coded on a four-point scale including never (0), sometimes (1), often (2), and very often (3).

The results in Table 14 indicate that respondents in a leadership minor course have a

significantly higher level of exposure to civic themes in the classroom (*p* < .01), and

active learning methods in the classroom (*p* < .001) compared to students in the random

sample. The mean scores range from a low of 1.07 (random sample on exposure to civic

themes in the classroom) to a high of 1.95 (respondents enrolled in a leadership minor

course on exposure to active learning methods in the classroom). These results indicate

that students enrolled in a leadership minor course have had more exposure to the two

classroom methods, but there is no way to verify if this exposure occurred in a leadership

minor course, or other courses outside the minor for students in the comparative sample.

The second set of independent samples *t*-tests were used to explore mean differences

across the eight outcomes of the Social Change Model of Leadership Development based

on enrollment in a leadership minor course. Table 15 provides the means, standard

deviations, and *t* values for both groups.

Table 15

*Independent Samples t-test for Social Change Model Outcomes by Exposure to a
Leadership Minor Course (N = 292)*

	Random sample (N = 233)		Enrolled in a minor course (N = 59)		
	M	*SD*	*M*	*SD*	*t* value
Consciousness of Self	3.03	0.46	3.10	0.42	-1.07
Congruence	3.16	0.46	3.25	0.45	-1.25
Commitment	3.36	0.43	3.40	0.43	- .61
Collaboration	3.06	0.40	3.30	0.37	-4.22***
Common Purpose	3.06	0.40	3.24	0.38	-3.04**
Controversy with Civility	2.93	0.42	3.10	0.48	-2.74**
Citizenship	2.91	0.66	3.20	0.60	-3.03**
Change	2.86	0.49	3.02	0.53	-2.27*

* $p < .05$. ** $p < .01$. *** $p < .001$.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral
(2), agree (3), and strongly agree (4).

Respondents who had taken a leadership minor course scored significantly higher at the *p*

< .001 level on the Collaboration outcome, at the *p* < .01 level for Common Purpose,

Controversy with Civility, and Citizenship, and at the *p* < .05 level for Change. In

examining the means across the eight outcome scales, the lowest mean score for

respondents enrolled in a leadership minor course was 3.02 for Change, compared to the

lowest mean of 2.86 on Change for the random sample. The highest mean for respondents

enrolled in a leadership minor course was 3.40 on Commitment, compared to the highest

mean of 3.36 on Commitment for the random sample.

The *t* values are all negative, indicating the direction of difference in the sample

means. In this set of analyses, the means for respondents enrolled in a leadership minor

course were all higher than the means for respondents that had not taken a leadership

minor course (random sample). The results of this analysis suggest a strong and positive

relationship between enrollment in a leadership minor course and the eight outcome

scales of the Social Change Model of Leadership Development. The *t*-test results

produced significant findings in regard to differences among the means but further

analyses examined whether or not participation in a leadership minor course has

explanatory power when controlling for other independent variables in the model.

Additional *t*-tests were performed for the control variables including gender and

race/ethnicity. The *t*-test results for the gender control variable are presented in Table 16.

The results indicate that females scored higher on the outcomes including Congruence,

Commitment, Collaboration, Common Purpose, and Citizenship, while males scored

higher on Consciousness of Self, Controversy with Civility, and Change. Statistically

significant findings were present for only Commitment (*p* < .05) and Citizenship (*p* <

.01) and these means were higher for females. These results are associated with the

regression analyses described later in this chapter.

Table 16

Independent Samples t-test for Social Change Model Outcomes by Gender (*N* = 292)

	Female (*n* = 179)		Male (*n* = 111)		
	M	*SD*	*M*	*SD*	*t* value
Consciousness of Self	3.01	0.42	3.09	0.49	-1.56
Congruence	3.18	0.43	3.16	0.50	.28
Commitment	3.42	0.39	3.29	0.47	2.60*
Collaboration	3.13	0.36	3.08	0.47	.85
Common Purpose	3.12	0.38	3.06	0.43	1.28
Controversy with Civility	2.95	0.41	2.99	0.48	- .82
Citizenship	3.05	0.56	2.83	0.77	2.87**
Change	2.85	0.46	2.94	0.56	-1.50

* *p* < .05. ** *p* < .01. *** *p* < .001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4). Gender coded female (0), male (1).

Table 17 provides the *t*-test results for the control variable race/ethnicity. The

t values are all negative, indicating that the means for students of color were higher than

white students for all eight outcomes. Statistically significant findings were present for

Collaboration (*p* < .05), Common Purpose (*p* < .01), Citizenship (*p* < .01) , and Change

(*p* < .01).

Table 17

Independent Samples t-test for Social Change Model Outcomes by Race/ethnicity (*N* = 292)

| | White (*n* = 238) | | Students of color (*n* = 54) | | |
	M	*SD*	*M*	*SD*	*t* value
Consciousness of Self	3.03	0.46	3.08	0.41	- .71
Congruence	3.17	0.46	3.21	0.47	- .56
Commitment	3.37	0.42	3.39	0.44	- .40
Collaboration	3.08	0.40	3.24	0.41	-2.61*
Common Purpose	3.07	0.39	3.24	0.40	-2.73**
Controversy with Civility	2.95	0.42	3.03	0.51	-1.27
Citizenship	2.91	0.67	3.22	0.51	-3.23**
Change	2.85	0.49	3.05	0.52	-2.64**

* *p* < .05. ** *p* < .01. *** *p* < .001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4). Race/ethnicity coded white (0), students of color (1).

Analysis of Variance

Analysis of variance (ANOVA) was performed for the remaining independent

variables, which included exposure to civic themes in the classroom and exposure to

active learning methods in the classroom, and to examine the control variable scales for

pre-college experiences and experiences during college. ANOVA was used to explore

mean differences across the eight outcomes of the Social Change Model of Leadership

Development based on exposure to civic themes and active learning methods in the

classroom, and exposure to pre-college experiences and experiences during college. The

recoded level of exposure for the four scales was used for the ANOVA test. The range

included (0) low level of exposure including response ranging from 0.1 – 0.9, (1) medium

level of exposure including responses ranging from 1.0 to 1.9, and (2) high level of

exposure including responses ranging from 2.0 to 3.0.

Table 18 presents the means and standard deviations from the one-way analysis of

variance for the eight outcomes of the Social Change Model by level of exposure to the

integration of civic themes in the classroom. The outcomes of the Social Change Model

include Consciousness of Self, Congruence, Commitment, Collaboration, Common

Purpose, Controversy with Civility, Citizenship, and Change. Respondents who had a

high level of exposure to civic themes in the classroom scored significantly higher on the

eight outcomes. The means for each outcome increased in a linear manner as the level of

exposure to civic themes increased from low to medium to high. The ANOVA test was

significant for Controversy with Civility and Citizenship at the $p < .001$ level,

Congruence and Change at the $p < .01$ level, and Consciousness of Self, Commitment,

Collaboration, and Common Purpose at the $p < .05$. An examination of mean scores for

level of exposure to civic themes in the classroom across the eight dependent variable

scales reveals results ranging from a low of 2.57 (low level of exposure on Citizenship) to

a high of 3.47 (high level of exposure on Commitment). The results of this analysis

reveal a strong, positive relationship between a high level of exposure to civic themes in the classroom and the eight outcome scales of the Social Change Model of Leadership Development.

Table 18

Analysis of Variance for Social Change Model Outcomes by Level of Exposure to Civic Themes in the Classroom (N = 292)

| | Level of Exposure | | | | | | |
| | Low | | Medium | | High | | |
	M	*SD*	*M*	*SD*	*M*	*SD*	*F value*
Consciousness of Self	3.05	0.35	2.98	0.43	3.15	0.51	4.31*
Congruence	3.01	0.47	3.13	0.43	3.31	0.49	6.00**
Commitment	3.36	0.42	3.32	0.41	3.47	0.45	3.87*
Collaboration	2.94	0.37	3.07	0.36	3.26	0.44	11.73***
Common Purpose	3.01	0.35	3.04	0.34	3.25	0.48	10.15***
Controversy with Civility	2.79	0.43	2.92	0.40	3.13	0.48	10.77***
Citizenship	2.57	0.90	2.92	0.55	3.25	0.58	18.22***
Change	2.72	0.52	2.85	0.49	3.04	0.48	7.52**

* $p < .05$. ** $p < .01$. *** $p < .001$.
Note. Coded on a three-point scale including (0), low level of exposure, (1), medium level of exposure, and (2), high level of exposure.

Table 19 contains similar results relative to differences among the means for level of exposure to active learning methods in the classroom. Higher level of exposure to active

learning methods had a significant correlation with Collaboration, Common Purpose and Citizenship at the $p < .001$ level, Controversy with Civility and Change at the $p < .01$ level, and Congruence at the $p < .05$ level. Level of exposure to active learning methods did not have a significant impact on Consciousness of Self and Commitment.

Table 19

Analysis of Variance for Social Change Model Outcomes by Level of Exposure to Active Learning Methods in the Classroom ($N = 292$)

	Level of Exposure						
	Low		Medium		High		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F value*
Consciousness of Self	2.97	0.44	3.00	0.46	3.11	0.43	2.33
Congruence	2.95	0.48	3.13	0.45	3.26	0.45	4.06*
Commitment	3.22	0.26	3.33	0.40	3.44	0.46	2.61
Collaboration	2.75	0.31	3.02	0.36	3.26	0.42	16.10***
Common Purpose	2.81	0.31	3.04	0.35	3.21	0.44	9.62***
Controversy with Civility	2.58	0.56	2.93	0.43	3.04	0.41	5.94**
Citizenship	2.55	0.66	2.86	0.69	3.15	0.56	8.94***
Change	2.93	0.43	2.79	0.50	3.02	0.48	7.68**

* $p < .05$. ** $p < .01$. *** $p < .001$.
Note. Coded on a three-point scale including (0), low level of exposure, (1), medium level of exposure, and (2), high level of exposure.

In reviewing the mean scores for exposure to active learning methods in the classroom, the lowest mean was 2.55 (low level of exposure on Citizenship) and the highest mean was 3.44 (high level of exposure on Commitment). The results illustrate a strong and positive relationship between extent of exposure to active learning methods in the classroom and the eight dependent variable scales. For all of the scales except Consciousness of Self and Commitment (exposure to civic themes) and Change (exposure to active learning methods), there was a linear pattern with the lowest mean resulting from the low level of exposure to civic themes and active learning in the classroom, followed by a higher mean resulting from medium level of exposure, to the highest mean associated with a high level of exposure.

Table 20 presents the differences among the means for level of exposure to pre-college experiences. Higher level of exposure to pre-college experiences had a significant impact on Citizenship at the $p < .001$ level, Common Purpose at the $p < .01$ level, and Congruence and Collaboration at the $p < .05$ level. Level of exposure to pre-college experiences did not have a significant impact on Consciousness of Self, Commitment, Controversy with Civility, and Change. The lowest mean was 2.71 (low level of exposure on Citizenship) and the highest mean was 3.48 (high level of exposure on Commitment). The results reveal a positive relationship between exposure to pre-college experiences and the eight outcomes. With the exception of Consciousness of Self, Commitment and Collaboration, there was a linear pattern with the lowest mean resulting from the low level of exposure to civic themes and active learning in the classroom,

followed by a higher mean resulting from medium level of exposure, to the highest mean

associated with a high level of exposure.

Table 20

Analysis of Variance for Social Change Model Outcomes by Level of Exposure to Pre-College Experiences (*N* = 292)

| | Level of Exposure | | | | | | |
| | Low | | Medium | | High | | |
	M	*SD*	*M*	*SD*	*M*	*SD*	*F value*
Consciousness of Self	3.04	0.42	2.91	0.47	3.11	0.44	2.55
Congruence	3.06	0.48	3.06	0.54	3.30	0.48	3.23*
Commitment	3.38	0.42	3.28	0.51	3.48	0.46	2.18
Collaboration	3.10	0.42	3.05	0.42	3.30	0.46	4.64*
Common Purpose	3.02	0.41	3.02	0.43	3.28	0.43	5.69**
Controversy with Civility	2.93	0.44	2.99	0.40	3.12	0.43	2.05
Citizenship	2.71	0.74	2.88	0.62	2.98	0.65	10.88***
Change	2.86	0.53	2.90	0.47	3.04	0.53	1.56

* *p* < .05. ** *p* < .01. *** *p* < .001.
Note.   Coded on a three-point scale including (0), low level of exposure, (1), medium level of exposure, and (2), high level of exposure.

Table 21 presents the differences among the means for level of exposure to co-

curricular experiences during college. Higher level of exposure to college experiences

had a significant impact on Citizenship at the $p < .001$ level, Common Purpose at the $p <$

.01 level, and Consciousness of Self and Congruence at the $p < .05$ level.

Table 21

Analysis of Variance for Social Change Model Outcomes by Level of Exposure to College Experiences ($N = 292$)

	Level of Exposure						
	Low		Medium		High		
	M	SD	M	SD	M	SD	F value
Consciousness of Self	2.80	0.48	3.06	0.41	3.03	0.41	3.21*
Congruence	2.90	0.53	3.17	0.43	3.32	0.54	4.43*
Commitment	3.25	0.43	3.35	0.43	3.46	0.51	1.25
Collaboration	2.97	0.42	3.14	0.40	3.23	0.52	2.29
Common Purpose	2.88	0.45	3.11	0.37	3.33	0.56	5.84**
Controversy with Civility	2.88	0.37	3.01	0.46	2.93	0.54	.66
Citizenship	2.71	0.66	3.04	0.49	3.42	0.55	8.99***
Change	2.72	0.47	2.86	0.45	3.02	0.43	2.45

* $p < .05$. ** $p < .01$. *** $p < .001$.
Note. Coded on a three-point scale including (0), low level of exposure, (1), medium level of exposure, and (2), high level of exposure.

Level of exposure to college experiences did not have a significant impact on

Commitment, Collaboration, Controversy with Civility, and Change. The lowest mean

was 2.71 (low level of exposure on Citizenship) and the highest mean was 3.46 (high

level of exposure on Commitment). The lowest and highest means for pre-college

experiences occurred for the same two outcomes. The results reveal a positive

relationship between exposure to experiences during college and the eight outcomes.

With the exception of Consciousness of Self and Controversy with Civility, the highest

means were associated with high level of exposure to experiences during college.

Regression analysis

The results from the analyses performed up to this point revealed consistently strong

and positive relationships between the independent and dependent variable scales.

Further analysis is needed to separate magnitude of effects amongst the set of inter-

correlated variable. Multiple regression analysis was chosen because it evaluates the

individual variables and blocks of variables that best explain results associated with the

dependent variables. The block approach to regression was used to accommodate the

large number of items associated with the independent and control variables, and in order

to add categories to the regression model in stages.

Each regression analysis included one of the eight dependent variables, the three

independent variables, and the control variables from the conceptual framework with the

exception of age. Categories were created to combine variables that were conceptually

linked into six blocks.

The first block was the demographic characteristics category which included gender

and race/ethnicity. For the regression analysis, gender was recoded using (0) for female

and (1) for male. Transgender and genderqueer only had one response each so these were

coded as missing data. Race/ethnicity was coded as (0) for Caucasian and (1) for non-Caucasian.

The second block included the variables associated with pre-college experiences. The individual variables were presented in Table 8 in the descriptive statistics section of this chapter.

The third block was the college characteristics category which included class level, college of enrollment and academic major focus on hard or soft sciences. Junior class level was coded as (0) and senior class level as (1). The small percentage of respondents indicated "unclassified" for class level was treated as missing data. College of enrollment was a categorical variable so SPSS procedures were used to create dichotomous variables for this regression analysis. Enrollment in the College of Liberal Arts was the base group for comparison. Major focus on hard sciences was coded as (0) and focus on soft sciences as (1).

Block four included the individual variables associated with experiences during college (Table 8). The scales for exposure to civic themes and active learning were combined in block five labeled "classroom methods" because both scales relate to exposure to teaching methods in the classroom setting.

The final block, number six, included enrollment in a leadership minor course. Respondents that had not enrolled in a leadership minor course were coded as (0) and those that had take a leadership minor course as (1).

Table 22

Summary of R^2 and F-change Values for Block Regression Model ($N = 292$)

Dependent Variable	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	R^2	F-change	R^2	F-change	R^2	F-change	R^2	F-change	R^2	F-change	R^2	F-change
Consciousness of Self	.01	1.38	.02	2.92	.06	1.81	.08	5.52*	.10	3.12*	.10	.03
Congruence	.00	0.10	.03	7.12**	.05	1.15	.06	2.29	.11	7.36**	.11	.25
Commitment	.02	3.28	.04	5.03*	.06	.89	.06	.57	.09	4.92**	.09	.00
Collaboration	.02	3.35*	.07	15.96***	.10	1.25	.12	6.32	.21	14.91***	.23	8.41**
Common Purpose	.03	4.17*	.09	18.19***	.13	1.76	.18	18.44***	.22	7.21**	.23	3.01
Controversy with Civility	.01	1.43	.04	8.67**	.10	2.91**	.10	.03	.18	11.93***	.19	3.34
Citizenship	.06	8.86***	.19	47.51***	.21	1.93	.30	35.82***	.34	7.93***	.35	.15
Change	.04	5.76**	.07	9.81**	.10	1.31	.10	.74	.16	9.46***	.17	2.62

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

The blocks were entered into the regression model using the forced-entry method. The blocks that included the control variables were entered first, in an order that started with general demographic characteristics and then a sequential exposure to pre-college experiences, characteristics assigned to each respondent as part of their enrollment in the university, and participation in selected experiences while in college. The independent variables from the conceptual framework for this study were entered last in order to examine whether or not they add anything to the prediction over and above the blocks that included the control variables. Table 22 presents a summary of the R-square and F-change values when each block was entered in the regression model.

The results for the overall model fit will be presented, followed by the details of the individual coefficients. Details for the individual variables are in a table located in Appendix H. As the results in Table 22 indicate, the total percent of variance explained by the full model ranged from 35 percent for the Citizenship outcome to 9 percent for the Commitment outcome. Results for the eight outcome scales of the Social Change Model of Leadership Development follow in a separate table for each outcome.

For the Consciousness of Self Scale (Table 23), the R-square values for the six blocks of variables were Demographic Characteristics (.01); Demographic Characteristics + Pre-college Experiences (.02); Demographic Characteristics + Pre-college Experiences + College Characteristics (.06); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.08); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.10); and Demographic Characteristics + Pre-college Experiences + College

Characteristics + College Experiences + Classroom Methods + Exposure to a leadership

minor course (.10).

Table 23

Summary of Regression Models for the Consciousness of Self Outcome of the Social Change Model of Leadership Development ($N = 292$)

Regression model	R	R-square	F-change
Demographic characteristics	.097	.009	1.38
Demographic characteristics +Pre-college experiences	.139	.019	2.92
Demographic characteristics +Pre-college experiences +College characteristics	.249	.062	1.81
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.283	.080	5.52*
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.316	.100	3.12
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to a leadership minor course	.317	.100	.03

*p<.05.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

The two blocks that resulted in a statistically significant F-change value when added to the model were College Experiences ($p < .05$) and Classroom Methods ($p < .05$).

The only variable with significant effect in the full model for Consciousness of Self Scale was being male (positive effect). So in this analysis, being male results in a higher level of Consciousness of Self and is the only variable that is associated with this outcome (see Appendix H).

The R-square values for the Congruence Scale (Table 24) were Demographic Characteristics (.00); Demographic Characteristics + Pre-college Experiences (.03); Demographic Characteristics + Pre-college Experiences + College Characteristics (.05); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.06); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.11); and Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods + Exposure to a leadership minor course (.11). The two blocks that resulted in a statistically significant F-change value when added to the model were Pre-college Experiences ($p < .01$) and Classroom Methods ($p < .01$).

The variables with significant effect in the full model for Congruence were enrollment in the School of Management (negative effect) and exposure to civic themes in the classroom (positive effect). Appendix H provides these results.

Table 24

Summary of Regression Models for the Congruence Outcome of the Social Change Model of Leadership Development (*N* = 292)

Regression model	R	R-square	F-change
Demographic characteristics	.027	.001	.10
Demographic characteristics +Pre-college experiences	.158	.025	7.12**
Demographic characteristics +Pre-college experiences +College characteristics	.228	.052	1.15
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.244	.060	2.29
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.327	.107	7.36**
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to a leadership minor course	.329	.108	.25

*p<.05. **p<.01.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

So enrollment in the School of Management is the only major of enrollment at the

selected institution that is a negative predictor on the Congruence scale. In addition,

exposure to civic themes is also positively correlated with the Congruence outcome, but

exposure to active learning methods is not.

Table 25

*Summary of Regression Models for the Commitment Outcome of the Social Change
Model of Leadership Development* (*N* = 292)

Regression model	R	R-square	F-change
Demographic characteristics	.149	.015	3.28*
Demographic characteristics +Pre-college experiences	.198	.039	5.03*
Demographic characteristics +Pre-college experiences +College characteristics	.245	.060	.89
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.249	.062	.57
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.307	.094	4.92**
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to leadership minor course	.307	.094	.00

*p<.05. **p<.01.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral
(2), agree (3), and strongly agree (4).

For the Commitment Scale (Table 25), the R-square values for the six blocks of variables were Demographic Characteristics (.02); Demographic Characteristics + Pre-college Experiences (.04); Demographic Characteristics + Pre-college Experiences + College Characteristics (.06); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.06); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.09); and Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods + Exposure to a leadership minor course (.09).

The two blocks that resulted in a statistically significant F-change value when added to the model were Demographic Characteristics ($p < .05$), Pre-college Experiences ($p < .05$), and Classroom Methods ($p < .01$). There were not any variables with significant effect in the full model for the Commitment Scale.

The R-square values for the Collaboration Scale (Table 26) were Demographic Characteristics (.02); Demographic Characteristics + Pre-college Experiences (.07); Demographic Characteristics + Pre-college Experiences + College Characteristics (.10); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.12); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.21); and Demographic Characteristics + Pre-college Experiences + College Characteristics +

College Experiences + Classroom Methods + Exposure to a leadership minor course

(.23).

Table 26

Summary of Regression Models for the Collaboration Outcome of the Social Change Model of Leadership Development ($N = 292$)

Regression model	R	R-square	F-change
Demographic characteristics	.151	.023	3.35*
Demographic characteristics +Pre-college experiences	.272	.074	15.96***
Demographic characteristics +Pre-college experiences +College characteristics	.320	.102	1.25
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.350	.122	6.32*
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.456	.208	14.91***
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to leadership course	.481	.231	8.41**

*p<.05. **p<.01. ***p<.001.
Note.   Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

The blocks that resulted in a statistically significant F-change value when added to the model were Demographic Characteristics ($p < .05$), Pre-college Experiences ($p < .001$), College Experiences ($p < .05$), Classroom Methods ($p < .001$), and Exposure to a leadership minor course ($p < .01$). So for the Collaboration outcome, five out of six blocks resulted in a significant F-change value when added to the model.

The variables with significant effect in the full model for Collaboration are presented in Appendix H and include exposure to active learning methods in the classroom (positive effect) and exposure to a leadership minor course (positive effect). In this analysis, exposure to active learning methods is a positive predictor for the Collaboration outcome but exposure to civic themes is not. In addition, respondents who have taken a leadership minor course are a positive predictor for a higher score on the Collaboration outcome scale.

For the Common Purpose Scale (Table 27), the R-square values for the six blocks of variables were Demographic Characteristics (.03); Demographic Characteristics + Pre-college Experiences (.09); Demographic Characteristics + Pre-college Experiences + College Characteristics (.13); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.18); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom methods (.22); and Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods + Exposure to a leadership minor course (.23).

Table 27

Summary of Regression Models for the Common Purpose Outcome of the Social Change Model of Leadership Development (*N* = 292)

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Regression model	R	R-square	F-change
Demographic characteristics	.168	.028	4.17*
Demographic characteristics +Pre-college experiences	.293	.086	18.19***
Demographic characteristics +Pre-college experiences +College characteristics	.353	.125	1.76
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.423	.179	18.44***
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.469	.220	7.21**
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to a leadership minor course	.478	.228	3.01

_____

*p<.05. **p<.01. ***p<.001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

The blocks that resulted in a statistically significant F-change value when added to the model were Demographic Characteristics ($p < .05$), Pre-college Experiences ($p < .001$), College Experiences ($p < .001$), and Classroom Methods ($p < .01$).

The variables with significant effect in the full model for the Common Purpose Scale were pre-college experiences (positive effect), enrollment in the School of Management (negative effect), college experiences (positive effect), and exposure to active learning methods in the classroom (positive effect). Enrollment in the School of Management appeared as a negative predictor for the Collaboration outcome, and appears again as a negative predictor for the Common Purpose outcome scale. Exposure to civic themes was not a significant correlate in this analysis. See Appendix H for the individual variable results.

The R-square values for the Controversy with Civility Scale (Table 28) were Demographic characteristics (.01); Demographic Characteristics + Pre-college Experiences (.04); Demographic Characteristics + Pre-college Experiences + College Characteristics (.10); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.10); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.18); and Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods + Exposure to a leadership minor course (.19).

Table 28

Summary of Regression Models for the Controversy with Civility Outcome of the Social Change Model of Leadership Development (*N* = 292)

Regression model	R	R-square	F-change
Demographic characteristics	.099	.010	1.43
Demographic characteristics +Pre-college experiences	.197	.039	8.67**
Demographic characteristics +Pre-college experiences +College characteristics	.323	.104	2.91**
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.323	.104	.03
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.419	.175	11.93***
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to leadership course	.430	.185	3.34

*p<.05. **p<.01. ***p<.001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

The blocks that resulted in a statistically significant F-change value when added to the model were Pre-college Experiences ($p < .01$), College Characteristics ($p < .01$), and Classroom Methods ($p < .001$).

In this analysis, being male, involvement in selected experiences during high school, and exposure to civic themes were all significant positive predictors for a higher score on the Controversy with Civility Scale (see Appendix H).

For the Citizenship Scale (Table 29), the R-square values for the six blocks of variables were Demographic Characteristics (.06); Demographic Characteristics + Pre-college Experiences (.19); Demographic Characteristics + Pre-college Experiences + College Characteristics (.21); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.30); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.34); and Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods + Exposure to a leadership minor course (.35). The blocks that resulted in a statistically significant F-change value when added to the model were Background Experiences ($p < .001$), Pre-college Experiences ($p < .001$), College Experiences ($p < .001$), and Classroom Methods ($p < .001$).

Table 29

Summary of Regression Models for the Citizenship Outcome of the Social Change Model of Leadership Development (*N* = 292)

_____

Regression model	R	R-square	F-change
Demographic characteristics	.238	.057	8.86***
Demographic characteristics +Pre-college experiences	.437	.191	47.51***
Demographic characteristics +Pre-college experiences +College characteristics	.463	.214	1.93
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.551	.304	35.82***
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.584	.341	7.93***
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to a leadership minor course	.587	.345	.147

_____

*p<.05. **p<.01. ***p<.001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

The variables with significant effect in the full model (see Appendix H) for the

Citizenship Scale were pre-college experiences (positive effect), enrollment in the School

of Management (negative effect), college experiences (positive effect), and exposure to civic themes in the classroom (positive effect). This is the third outcome scale where enrollment in the School of Management is a negative predictor of a higher result. Involvement in selected experiences during college is a positive predictor, in addition to exposure to civic themes in the classroom. Exposure to active learning methods in the classroom was not a significant correlate in this analysis of the Citizenship outcome scale.

The R-square values for the six blocks of variables for the Change Scale (Table 30) were Demographic Characteristics (.04); Demographic Characteristics + Pre-college Experiences (.07); Demographic Characteristics + Pre-college Experiences + College Characteristics (.10); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences (.10); Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods (.16); and Demographic Characteristics + Pre-college Experiences + College Characteristics + College Experiences + Classroom Methods + Exposure to a leadership minor course (.17). The blocks that resulted in a statistically significant F-change value when added to the model were Demographic Characteristics ($p < .01$), Pre-college Experiences ($p < .01$), and Classroom Methods ($p < .01$).

Table 30

Summary of Regression Models for the Change Outcome of the Social Change Model of Leadership Development ($N = 292$)

_____

Regression model	R	R-square	F-change
Demographic characteristics	.196	.038	5.76**
Demographic characteristics +Pre-college experiences	.265	.070	9.81**
Demographic characteristics +Pre-college experiences +College characteristics	.316	.100	1.31
Demographic characteristics +Pre-college experiences +College characteristics +College experiences	.319	.102	.74
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods	.399	.159	9.46***
Demographic characteristics +Pre-college experiences +College characteristics +College experiences +Classroom methods +Exposure to a leadership minor course	.409	.167	2.62

_____

*p<.05. **p<.01. ***p<.001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).

The variables with significant effect in the full model for the Change Scale were being male (positive effect), pre-college experiences (positive effect), exposure to active learning methods in the classroom (positive effect), and exposure to civic themes in the classroom (positive effect). See appendix H for the individual variable results.

Several findings from the regression analyses merit attention. Table 22 presented the summary of the F-change values when the individual blocks were entered into the regression model. First, the block including classroom methods (the combined overall scales for exposure to civic themes and active learning in the classroom resulted in a statistically significant F-change value for seven of the eight Social Change Model outcome scales when added to the model. The outcome of Collaboration was the only one that was not influenced by the classroom methods block. The individual contribution for exposure to civic themes was significant for four outcomes including the Congruence, Controversy with Civility, Citizenship, and Change. The individual contribution for exposure to active learning methods was significant for Collaboration, Common Purpose, and Change.

Another block that resulted in a statistically significant F-change value for seven of the eight Social Change Model outcome scales when added to the model was pre-college experiences. This was entered as a scale so individual items that made up the scale do not appear in the regression results.

The block including demographic characteristics was statistically significant for five outcomes, with gender (being female) appearing as a significant negative contributor in the individual variable regression results for three of the outcomes. Enrollment in the

School of Management was the only college of enrollment that appeared as a significant individual variable contribution to the regression model with significant results (negative effect) for the outcomes including Congruence, Common Purpose and Citizenship. Enrollment in a leadership minor course had a significant positive effect only on the Collaboration outcome.

Summary

The statistical analyses in this chapter were implemented to explore the relationship of the variables in the conceptual framework for this study and to answer the question: To what extent does exposure to civic themes in the classroom, active learning methods, and enrollment in a leadership minor course have on the eight outcome scales of the Social Change Model of Leadership Development? The examination of these variables resulted in several significant results for the analyses presented in this chapter. The first independent variable, exposure to civic themes in the classroom, had a statistically significant positive effect on most of the outcomes of the Social Change Model of Leadership Development. This independent variable scale resulted in significant positive correlations with the other independent variables (exposure to active learning methods in the classroom and enrollment in a leadership minor course), and with all eight dependent variables. The ANOVA resulted in a significant positive effect for all eight outcomes by level of exposure to civic themes in the classroom. Finally, when civic themes was combined with active learning methods (Classroom Methods) for the regression analysis, the result was a statistically significant F-change value for the eight Social Change Model outcome scales when added to the model.

Exposure to active learning methods in the classroom was the second independent variable with significant positive effect. The correlation matrix reveals significant and positive correlation with all independent and dependent variables. Significant results for the ANOVA were present for six of the eight outcomes, excluding Consciousness of Self and Commitment. As described above, a statistically significant F-change value for seven of the eight Social Change Model outcome scales (excluding Collaboration) when added to the regression model.

The final independent variable, enrollment in a leadership minor course, was positively correlated at a significant level for the other independent variables and five of the eight dependent variables excluding Consciousness of Self, Congruence, and Commitment. The *t*-test produced significant results for the same five dependent variables. When controlling for other factors in the regression model, enrollment in a leadership minor course only resulted in explanatory power for the Collaboration outcome scale.

The next and final chapter will provide a discussion of these results and their implications.

CHAPTER 5

Discussion and Conclusions

On January 10, 2012 the United States Department of Education released the task

force report, *A Crucible Moment: College Learning and Democracy's Future*, in

response to what is described as a trend of "civic erosion" in the United States. The need

to "reclaim and invest in the fundamental civic and democratic mission of schools and of

all sectors within higher education" is the first essential action step outlined in the report

(p. vi). The Task Force report argues that college students' civic learning and democratic

engagement should be a high priority and a resource for democracy. The report goes on

to state that "the knowledge, skills, and experiences students need for responsible

citizenship should be part of each student's general education program" (p. 29).

The question of *how* institutions of higher education can reinvigorate the civic

mission served as the backdrop for this study, specifically institutional approaches vis-à-

vis undergraduate curriculum and pedagogy that promote civic knowledge, skills, and

attitudes. The task force report acknowledges that civic matters have been on the agenda

for many state higher education commissions, but efforts typically focus on promoting

community service outside the classroom or on increasing the number of voting citizens.

Empirical evidence of the effects of practices to promote civic   engagement has been

largely confined to service learning experiences (Finley, 2011). This study went beyond

service learning to examine two primary strategies that emerged from the literature

review for this research: (1) the integration of civic themes in curriculum; and (2) the use

of active learning methods in the classroom. A third independent variable was added to

the conceptual framework for this study. This variable was participation in the

undergraduate leadership minor at the study institution because this program integrates

civic themes in the curriculum, uses the active learning methods outlined in this study,

and used the Social Change Model of Leadership Development to design the curriculum

and course sequence.

The civic themes that appeared consistently in the literature included problem

solving, respect for differences/the ability to work with individuals different from

ourselves, and social responsibility. Critical thinking and moral reasoning also appeared

consistently in the literature but were not included in the conceptual framework for this

study due to challenges relating to scope and lack of a common definition for these

constructs across disciplines. The active learning methods that emerged from the

literature review and were used in this study included collaborative learning, cooperative

learning, experiential learning, problem-based learning, and service learning.

Overview of Study Design and Findings

The dependent variables in the conceptual framework for this study were based on

the Social Change Model of Leadership Development (HERI, 1996) and include

Consciousness of Self, Congruence, Commitment, Collaboration, Common Purpose,

Controversy with Civility, Citizenship, and Change. The Social Change Model of

Leadership Development was selected because the desired outcomes of the model

correspond to the civic knowledge, skills, and attitudes that emerged from the literature

review. In addition, the model was created for the college student population and frames

leadership in the context of social change and citizenship. The Socially Responsible Leadership Scales were developed to examine these eight outcomes (Tyree, 1998), and were subsequently tested and used in administration of the Multi-Institutional Study of Leadership in 2006 and 2009 (Dugan & Komives, 2007; Multi-Institutional Study of Leadership, 2009). The Socially Responsible Leadership Scale-Revision 2 (SRLS-R2) was used in this study with permission from the National Clearinghouse for Leadership Programs.

The control variables included pre-college experiences, age, gender, race/ethnicity, class year, college of enrollment, and other selected college experiences that are outlined later in this chapter.

Survey items were created and added to 71 items in the SRLS-R2. The web-based survey was administered in the fall of 2010. The survey was completed by 331 respondents for a 17 percent response rate. Responses to the survey were imported into the statistical analysis program Statistical Package for the Social Sciences (SPSS), version 16.0 and syntax was created for data analysis. After coding SPSS syntax to account for missing data, the final sample for data analysis was $n = 292$. There were 233 in the random sample and 59 in the comparative sample (students who had enrolled in a leadership minor course).

In addition to descriptive statistics, analyses included correlation, t-tests, ANOVA, and multiple regression. There were several significant results for the correlation, t-tests, and ANOVA analyses. Exposure to civic themes in the classroom had a statistically significant positive effect on each of the eight outcomes of the Social Change Model of

Leadership Development. Exposure to active learning methods in the classroom resulted in statistically significant positive effects for six of the eight outcomes, excluding Consciousness of Self and Commitment. Enrollment in a leadership minor course had a statistically positive effect on five of the eight dependent variables including Collaboration, Common Purpose, Controversy with Civility, Citizenship, and Change.

The multiple regression model used the block approach to group variables that were conceptually linked. The first block included the demographic characteristics of gender and race/ethnicity. The second block included pre-college experiences. The third block included characteristics assigned to each respondent as part of their enrollment in the university (class level, college of enrollment, major focus on hard or soft sciences). The fifth block included exposure to civic themes and active learning methods in the classroom, labeled "classroom methods," and the final block included exposure to a leadership minor course.

The result for "classroom methods" was a statistically significant F-change value for the eight Social Change Model outcome scales when added to the model in the fifth block, but the F-change value was not significant when exposure to a leadership minor course was added as the sixth block for the full model, with the exception of the Collaboration outcome. The variables with a significant effect in the full model for Collaboration included exposure to active learning methods and exposure to a leadership minor course. Control variables that resulted in a significant effect in the final model for the different outcome scales included gender, pre-college experiences, college of

enrollment, and experiences during college. The results for the control variables are discussed later in the discussion section.

The results of this study suggest the strategies to promote students' perspectives and experiences related to the eight dimensions of the Social Change Model of Leadership Development are complicated, and that the relative influences of various aspects of a student's history (e.g., different experiences prior to college, race/ethnicity, gender, college of enrollment, selected experiences during college) have differential effects for each of the eight outcome dimensions. The following section will discuss the results in more detail.

Discussion

The discussion will focus first on the set of dependent variables in the context of the regression analyses. More detailed discussion of results will follow in the discussion of the independent variables, which included exposure to civic themes in the classroom, exposure to active learning methods in the classroom, and enrollment in a leadership minor course, and the control variables. Control variables in this study included gender, race/ethnicity, pre-college experiences, focus of academic major (i.e., focus on hard or soft sciences), college of enrollment, experiences during college, and class level.

There were six blocks in the full regression model including demographic characteristics, pre-college experiences, college characteristics, experiences during college, classroom methods (civic and moral themes and active learning), and exposure to a leadership minor course. When all blocks were entered, the percent of variance explained by the full model included Consciousness of Self (.10), Congruence, (.11),

Commitment (.09), Collaboration, (.23), Common Purpose (.23), Controversy with

Civility (.19), Citizenship (.35), and Change (.17).

For Consciousness of Self, the blocks that resulted in a statistically significant F-change value when entered into the regression model were college experiences ($p < .05$) and classroom methods ($p < .05$). The variables with a significant effect in the full model included gender (female, negative effect).

For Congruence, the blocks that resulted in a statistically significant F-change value when entered into the regression model were pre-college experiences ($p < .01$) and classroom methods ($p < .01$). Variables with significant effect in the full model for the Congruence outcome included college of enrollment (School of Management, negative effect) and exposure to civic themes in the classroom (positive effect).

The blocks that resulted in a statistically significant F-change value when entered into the regression model for the Commitment outcome were demographic characteristics ($p < .05$), pre-college experiences ($p < .05$) and classroom methods ($p < .01$). There were no variables with a significant effect in the full model for the Commitment outcome.

For the Collaboration outcome, the blocks that resulted in a statistically significant F-change value when entered into the regression model were demographic characteristics ($p < .05$), pre-college experiences ($p < .001$), college experiences ($p < .05$), classroom methods ($p < .001$), exposure to a leadership minor course ($p < .01$). The variables with a significant effect in the full model included exposure to active learning methods and a leadership minor course (both positive effect).

For Common Purpose, the blocks that resulted in a statistically significant F-change value when entered into the regression model were demographic characteristics ($p < .05$), pre-college experiences ($p < .001$), college experiences ($p < .01$), and classroom methods ($p < .01$). Variables with a significant effect in the full model for the Common Purpose outcome included exposure to active learning methods (positive effect).

The blocks that resulted in a statistically significant F-change value when entered into the regression model for the Controversy with Civility outcome were pre-college experiences ($p < .01$), college characteristics ($p < .01$), and classroom methods ($p < .001$). For the Controversy with Civility outcome, variables with a significant effect in the full model included gender (female, negative effect), pre-college experiences (positive effect), and exposure to civic themes (positive effect).

For Citizenship, the blocks that resulted in a statistically significant F-change value when entered into the regression model were demographic characteristics ($p < .001$), pre-college experiences ($p < .001$), college experiences ($p < .001$), and classroom methods ($p < .001$). Variables with a significant effect in the full model for the Citizenship outcome included pre-college experiences (positive effect), college of enrollment (School of Management, negative effect), college experiences (positive effect), and exposure to civic themes (positive effect).

Finally, the blocks that resulted in a statistically significant F-change value when entered into the regression model for Change were demographic characteristics ($p < .01$), pre-college experiences ($p < .01$), classroom methods ($p < .001$). The variables with a significant effect in the full model for the Change outcome included gender (female,

negative effect), pre-college experiences (positive effect), exposure to civic themes (positive effect) and exposure to active learning methods (positive effect).

The classroom methods block was the only block that resulted in a statistically significant F-change value for all eight outcomes when added as block five out of six to the regression model, highlighting the explanatory power of the two independent variables before adding the sixth block in the regression model. The classroom methods block was closely followed by pre-college experiences that resulted in a significant F-value change for seven of the eight outcomes (excluding Consciousness of Self) when entered as block two out of six into the model. The demographic background block resulted in a significant F-change value for five outcomes when entered as block one, and college experiences resulted in a significant F-change value for four outcomes when entered as block four. College characteristics resulted in a significant F-change value for only the Controversy with Civility outcome when entered as block three, and exposure to a leadership minor course for only the Collaboration outcome when entered as block six. Collaboration was the only outcome that resulted in a statistically significant F-change value when all six blocks were entered into the regression model.

The discussion will now turn to the independent variables in this study. The recommendation to integrate civic themes into the curriculum emerged from the literature review for this study (Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000; Jacoby, 2009; Thomas, 2010). The infusion of civic learning across students' education experiences, over time in a developmental arc, is a recommendation outlined in *A Crucible Moment: College Learning and Democracy's Future* (2012) as a strategy for

colleges and universities to move from partial to pervasive civic and democratic learning

and practices.

In this study, the mean scores revealed that students were exposed at varying levels

to the individual items that were included in scale for "exposure to civic themes in

curriculum" (See Table 9). The response scale ranged from never (coded 0) to very often

(coded 3). The item "act on community or social issues" had the lowest mean of 1.13,

compared to the highest mean of 2.05 for "interact with someone with views different

from your own." The percentage of respondents indicating they had never been exposed

to the 10 items in scale for civic themes ranged from 3.1 percent for "define an issue or

challenge," to 24 percent for "act on community or social issues."

Exposure to civic themes was positively correlated with all dependent variables at

significant levels ($p < .01$) so explanation of outcomes was possible for subsequent

analyses. The magnitude of the correlations with the eight dependent variables ranged

from the lowest for Commitment (.190), to the highest for Citizenship (.360). Results for

the ANOVA analyses resulted in statistically significant findings on all eight outcomes.

The means for seven of the eight outcomes (excluding Consciousness of Self) increased

in a linear manner as the level of exposure to civic themes increased from low, to

medium, to high. The regression results that were presented earlier in this discussion

section revealed that when exposure to civic themes and active learning methods were

grouped to create the classroom methods block, the F-change value was significant for all

eight outcomes when this block was added to the regression model. The R-square values

indicating the percent of variance explained when this block was added to the model were

Consciousness of Self (.10), Congruence (.11), Commitment (.09), Collaboration (.21), Common Purpose (.22), Controversy with Civility (.18), Citizenship (.34), and Change (.16). When exposure to a leadership minor course was added as the sixth and final block in the model, the F-change value was significant only for the Collaboration outcome so classroom methods was no longer an explanatory variable for the other seven outcomes.

Exposure to civic themes appeared as a variable with significant effect when all six blocks were entered in the model for Congruence ($p < .05$), Controversy with Civility ($p < .001$), Citizenship ($p < 01$), and Change ($p < .05$). In summary, the results associated with exposure to civic themes demonstrate that this independent variable is significantly and positively associated with the eight outcomes. Among the eight outcomes in this study, results from the different analyses are consistently highest for the Citizenship outcome.

Results from this study can be compared to other studies that have also investigated common themes. One variable that needs to be highlighted when comparing results is class level. Other studies included freshmen to seniors, whereas this study limited class level to juniors and seniors. Juniors and seniors have had more exposure to educational policies and practices in the institutional environment and more opportunities to participate in activities and programs. For example, percentage responses to the items associated with exposure to civic themes in this study can be compared with results from the 2010 administration of the Student Experience in the Research University (SERU) national survey at the study institution. The items that were used for the "civic themes" scale for this study were also included in the in the civic and community engagement

module. The SERU was administered at the study institution in spring 2010, and 20

percent of the sample was assigned to the civic and community engagement module ($n =$

1,661). This sample did include freshmen through senior class level, compared to this

study that narrowed scope to junior and senior class level ($n = 292$). For the seven items

that were included in both studies, the participation rates for respondents indicating

"often" and "very often" were higher in this study for all items, ranging from 29 percent

higher for "how often have you been asked to interact with someone with views that are

different from your own," to 59 percent higher for "how often have you been asked to

acknowledge personal differences." Beyond activities in the classroom, the other item

that was included in both studies was participation in community service. For example,

in this study the response to participation in community service was 78 percent,

compared to the SERU survey, administered at the study institution which was 55

percent. The fact that this study included only juniors and seniors is a possible

explanation for the higher participation, compared to a study that included first year

students and sophomores with fewer years of experience and exposure to classes and

opportunities at the university.

In addition to exposure to civic themes, the second strategy that was explored in this

study was students' exposure to active learning methods. For this study, these methods

included collaborative learning, cooperative learning, experiential learning, problem-

based learning, and service learning. A recommendation that emerged from the literature

is that the development of civic skills in college students can be facilitated through active,

experiential learning that promotes outcomes such as critical thinking, moral reasoning,

social responsibility, civic-mindedness, and exposure to diversity (Battistoni, 1997;

Bringle & Hatcher, 1996; Colby, Ehrlich, Beaumont, & Stephens, 2003; Ehrlich, 2000;

Jacoby, 1996; Kezar & Rhoads, 2001; Mentkowski, 2000; O'Grady, 2000; Rimmerman,

1997; Sax, 2000; Thomas, 2000; Thomas, 2010). The results of this study revealed that

all respondents had been exposed to the five active learning methods included in the

conceptual framework. Mean scores demonstrated varying levels of exposure to these

methods. The response scale ranged from never (coded 0) to very often (coded 3).

Service learning had the lowest mean of .82, compared to the highest mean of 2.30 for

collaborative learning. The mean for exposure to cooperative learning methods was also

high at 2.01. The percentage of respondents indicating they had never been exposed to

the different active learning methods ranges from zero percent for collaborative learning,

to 46 percent for service learning.

In comparing means between active learning methods and the other independent

variable (exposure to civic themes), the highest mean was 2.30 for the collaborative

learning item in the active learning scale, compared to the high mean of 2.05 for "interact

with someone with views that are different from your own" on the exposure to civic

themes scale. The lowest mean of .81 appeared for service learning on the active

learning scale, compared to a low mean of 1.13 for "act on community or social issues"

for the exposure to civic themes scale.

The results in this study revealed statistically significant positive correlations

$(p < .01)$ between exposure to active learning methods and all of the dependent variables

in this study. The magnitude of the correlations with the eight dependent variables ranged

from the lowest for Consciousness of Self (.151), to the highest for Collaboration (.363).

The correlation between active learning and civic themes was the highest among the three

independent variables in the correlation matrix (.488).

In the ANOVA analysis, significant differences in means appeared for six of the

eight outcomes, excluding Consciousness of Self and Commitment. Several were

significant at the $p < .001$ level including Collaboration, Common Purpose, and

Citizenship. As stated in the previous section on civic themes, the F-change value was

significant for all eight outcomes when the Classroom Methods was added as the fifth,

out of six blocks in the regression model. The F-change value was significant for only

the Congruence outcome when the sixth block was added to the model. Exposure to

active learning methods appeared as a variable with significant effect in the full model

that included all six blocks for Collaboration ($p < .001$), Common Purpose

($p < .05$), and Change ($p < .05$). In summary, the results indicated that active learning

methods are significantly and positively associated with a majority of the eight outcomes.

Consistent results appeared for the Collaboration and Common Purpose outcomes, which

is not surprising given the high mean results for exposure to collaborative and

cooperative learning methods. The results associated with the active learning methods

independent variable are consistent with a review of research on learning-centered versus

teacher-centered models. Evidence provided support for the assertion that change is

likely to occur when students are actively engaged in learning (Pascarella & Terenzini,

2005).

In a search for other surveys that include the theme of active learning methods, The National Survey on Student Engagement (NSSE) emerged. NSSE examines the comprehensive approach to student learning. Based on years of data collection and analysis, NSSE has developed five benchmarks of effective educational practice. One of those benchmarks is "active and collaborative learning." The seven items included in this benchmark are very similar to the items for the "active learning" scale in this study. The 2011 annual report on the NSSE states, "Students learn more when they are intensely involved in their education and are asked to think about and apply what they are learning in different settings. Collaborating with others in solving problems or mastering difficult material prepares students to deal with the messy, unscripted problems they will encounter daily, both during and after college" (p. 35). NSSE does not measure students' perceptions of outcomes, so the survey content and study design limits the ability to do a direct comparison of results in this study and the NSSE. However, it is worth noting that the overall emphasis on active and collaborative learning as an effective educational practice is a common theme across the two studies and is worth exploring as a strategy to promote the development of civic knowledge, skills, and attitudes among undergraduates.

The final strategy that was examined in this study was exposure to a leadership minor course at the study institution. Twenty percent ($n = 59$) of the sample for this study were students who had enrolled in a leadership minor course. The Social Change Model of Leadership Development, which includes the eight dependent variables in this study, was used as the underlying framework to develop the minor. The minor integrates civic themes in the curriculum and delivers courses through active learning methods so the

literature review suggested that would be significant findings for this variable.

Statistically significant correlations ($p < .01$) were present in the correlation matrix

between exposure to a leadership minor course and civic themes and active learning

methods. The higher correlation was present for active learning methods (.210), followed

by civic themes (.171). Statistically significant correlations ($p < .01$) were also present for

exposure to a leadership minor course and Collaboration, Common Purpose, Controversy

with Civility, and Citizenship. The correlation with Change was significant ($p < .05$). For

the five outcomes with significant results, the magnitude of the correlation was highest

for Collaboration (.240), followed by Common Purpose (.176), Citizenship (.175), and

Controversy with Civility (.159), and Change (.132). Correlations were not significant for

Consciousness of Self, Congruence, and Commitment. One possible explanation for the

lack of significance for these outcomes is that these topics are emphasized in the

introductory course, which has a higher enrollment of first year students and sophomores.

The sample for this study was limited to juniors and seniors so it was not possible to

examine correlations with these outcomes with first year students and sophomores.

In examining results from the independent samples t-test, students that were exposed

to a leadership minor course scored statistically significantly higher on Collaboration ($p <$

.001), Common Purpose, Controversy with Civility, and Citizenship ($p < .01$), and

Change ($p < .05$), similar to the correlation results. However, in the regression analysis,

exposure to a leadership minor course resulted in explanatory power for the only

Collaboration outcome scale. The minor program places explicit emphasis on creating a

sense of community in the classroom and on the premise that individuals need to engage

with others in order to effect change. Therefore, the explanatory power for the

Collaboration scale was not surprising. However, it was unexpected that other outcome

scales such as Controversy with Civility, and Citizenship were not significant in the

regression analyses because these concepts are also emphasized in the higher level

leadership minor courses that are limited to juniors and seniors. As stated previously, the

focus of the introductory course is on cultural self awareness and the importance of

understanding self before one can engage with others. Instructors create an intentional

level of tension to encourage students to engage in conflict in a productive and civil

manner. In regard to citizenship, students are prompted to reflect on their role as a global

citizen and grapple with real-life issues throughout the minor sequence. As stated in the

opening of this discussion section, the strategies to promote student's perspectives and

experiences related to the eight dimensions of the Social Change Model of Leadership

Development are complicated, and that the relative influences of various aspects of a

student's history (e.g., different experiences prior to college, race/ethnicity, gender,

college of enrollment, selected experiences during college) have differential effects for

each of the eight outcome dimensions. This complexity may be an explanation for the

lack of explanatory power for the leadership minor variable in the final regression

analysis.

The discussion will now focus on the control variables in this study. College

learning outcomes are often affected by pre-college student measures and educational

policies and practices in the institutional environment (Astin, 1991; Pascarella &

Terenzini, 2005). The results of this study are consistent with this premise and illustrate

that the relative influences of various aspects of a student's experience and/or demographic characteristics have differential effects for each of the eight outcome dimensions. The control variables for this study included gender, race/ethnicity, pre-college experiences, focus of academic major (i.e., focus on hard or soft sciences), college of enrollment, experiences during college, and current class level.

In the comparison of means for the gender variable, statistically significant differences ($p < .05$) were present for females on the Commitment and Citizenship outcomes. The means were higher for females in both cases. The finding of gender differences is consistent with other recent research, both at the institution for this study and elsewhere. The Multi-Institutional Study of Leadership (MSL) survey includes gender and utilizes the SLRS-R2, which is the same scale used to measure the dependent variables in this study. The study institution administered the MSL survey in 2009 ($n = 1,107$). Consistent with this study, females in the MSL study scored higher on Commitment and Citizenship at significant levels ($p < .05$). But in the MSL study, females also scored higher on Congruence, Collaboration, Common Purpose, and Controversy with Civility at significant levels ($p < .05$). The 2009 MSL study administered at the study institution, and other studies outside of this institution included freshmen to seniors in their samples, compared to this study where class level was limited to juniors and seniors. In another MSL study ($n = 859$) conducted outside the University of Minnesota, females scored significantly higher on six of the eight outcomes excluding Collaboration and Controversy with Civility (Dugan, 2006). In the 2006 National MSL study, females had higher mean scores across seven of the eight outcomes excluding

Change (Dugan & Komives, 2007). In comparing means, Commitment was the one outcome scale that had statistically significant gender difference results across the four studies. Beyond this outcome, the difference in sample size might be an explanation for the different outcomes that appear in each study. Sample size ranged from $n = 229$ for this study, to $n = 50,378$ for the 2006 National MSL study. The context for each study might also be an explanation. Two studies were conducted at the study institution and the other two were multi-institutional in design.

In contrast to the common themes regarding females, there were different findings associated with gender in the regression analyses for this study. Gender was a variable with significant effect in the full model (female, negative effect) for Consciousness of Self, Controversy with Civility, and Change. In examining the independent samples t-test for gender, the means were higher for males on these three outcomes, but not at a significant level. The other studies did not report on regression analyses.

In regard to race/ethnicity, students of color in this study reported statistically significant ($p < .05$) higher scores than white students on Collaboration, Common Purpose, Citizenship, and Change in contrast to the study institutions' MSL results where the only significant finding was on the Commitment scale, resulting in a lower score for students of color. The percentage of white students in this study was 82 percent compared to 76 percent in the MSL study. A doctoral dissertation focused on higher education experiences and values that affect the achievement of responsible citizenship used the Citizenship scale that was included in this study (VanHecke, 2005). VanHecke included race as a variable, and consistent with the findings of this study, students of color scored

higher on the Citizenship scale. The Pearson product-moment correlation between students of color and white students was significant ($p < .01$) in this study, compared to ($p < .05$) in the VanHecke study. However, race/ethnicity did not appear as significant in the regression analyses for this study and the VanHecke study. The contrast in results for the University of Minnesota-Twin Cities campus studies, students of color scoring high on several outcomes in this study compared to a low score on one outcome in the other, presents a challenge in regard to discussing conclusions for this institution and opportunities for more in-depth research that are presented later in this chapter.

In the regression analysis for this study, students' experiences prior to college were significantly and positively related to of higher scores on the outcome scales including Common Purpose, Controversy with Civility, Citizenship, and Change. The selected pre-college experiences for this study included involvement in a leadership role, participation in community service in or outside of class, and participation in a religious organization beyond attending a service. In examining mean differences related to these regression results, involvement in a leadership role was statistically significant for Controversy with Civility, Citizenship and Change. Participation in community service in and outside the classroom resulted in significant results for all four outcomes, and involvement in a religious organization was significant for Common Purpose and Citizenship. Other studies that used the outcomes of the Social Change Model of Leadership Development included different items related to pre-college experiences so direct comparisons are not possible. Results from the national 2006 MSL study demonstrated that students' pre-college experiences and pre-college measures of the dimensions in the Social Change

Model of Leadership Development explained most of the variance in the outcomes for the study (Dugan & Komives, 2007). The consistent theme is that pre-college experiences do have a positive effect on several outcomes of the Social Change Model of Leadership Development.

An unexpected finding occurred in regard to the focus of the major field of study (i.e., hard or soft sciences), which was a variable in the regression block for "demographic characteristics." It was presumed that students in soft sciences would have more exposure to liberal education themes that are associated with civic knowledge, skills, and attitudes, and would therefore have higher scores on the outcome scales compared to students in hard sciences. It was also hypothesized that majors in which content is fixed and cumulative, and requires mastery of logically structured problems would have stronger roots in more traditional teaching methods such as lecture, compared to active learning methods. However, this variable did not appear as significant in the regression analyses.

College of enrollment was included in the conceptual framework because it was hypothesized that some college majors are more closely aligned with the goals of citizenship education, such as liberal arts, and that opportunities for students in "hard sciences" to take liberal education courses is more restricted due to major curriculum requirements. In examining means, statistically significant differences appeared for only the Controversy with Civility outcome. The College of Education and Human Development scored the highest ($M = 3.15$) and "other" scored the lowest ($M = 2.82$). The "other" category included the College of Design, the College of Food, Agriculture, and Natural Resource Sciences, and the School of Nursing. In the regression analyses,

being in the School of Management was negatively associated with Congruence, Common Purpose, and Citizenship. In the VanHecke (2005) study, students enrolled in business and technical applied majors was statistically significant and a negative predictor of Citizenship in the initial blocks of her regression model, but not in the full model. Review of college student related research on students' major field of study has focused more on sociopolitical attitudes and values (Pascarella & Terenzini, 2005), and the authors concluded that effects of major were inconclusive. While the sample of this study was small, the negative effect of being a business major on outcome variables such as Congruence and Citizenship is worth exploring further at a time when high profile ethical collapses in business and financial sectors are in the news and prominent on national and global agendas.

The next control variable was students' experiences during college. The selected experiences for this study included involvement in a club, organization or sport, holding a leadership role in a club, organization or sport, participation in non-credit bearing leadership program, study abroad, community service that was not part of a class, and participation in a religious organization. This variable was statistically significant in relation to higher scores for the outcome scales of Common Purpose and Citizenship when controlling for other factors in the regression model. In examining mean differences related to these regression results, involvement in a student group, holding a leadership position, participation in co-curricular leadership programs, co-curricular community service, and participation in a religious organization all revealed statistically significant results related to Common Purpose and Citizenship. Participation in study

abroad was the only college experience that was not significant for these two outcomes, which was not surprising because study abroad exposes students to differences rather than commonalities, and the concept of citizenship can vary in different cultural contexts. Results from the 2006 MSL study provided consistent results in regard to involvement in a student group, holding a leadership position, participation in co-curricular leadership programs, and co-curricular community service. In the MSL study, these college experiences resulted in statistically significant results for the Common Purpose and Citizenship outcomes, with the exception of a lack of statistical significance for community service and the Common Purpose outcome. The VanHecke study included some of the same items for the "college experience" scale in the regression model. In contrast to this study, the college experience scale was not significant in the final model for the Citizenship outcome. This contrast is not surprising as first year students and sophomores were included in the sample for the VanHecke study and would not have the same level of experience or opportunity compared to a sample that only included juniors and seniors.

The final control variable was class level and this variable did not result in any significant findings for the various analyses. This was expected because the sample was limited to juniors and seniors rather than a broader range of age and experience had first year students and sophomores been included.

Implications for Theory

A literature review on civic engagement in postsecondary education revealed that empirical evidence of effects of practices to promote civic engagement is largely

confined to service learning experiences (Finley, 2011). This study provides empirical

evidence related to additional strategies that promote civic engagement. The results

suggest that integration of civic themes into curriculum and exposure to active learning

methods does matter in regard to the civic dimensions identified for this study. The

positive results suggest that additional research on theories, frameworks and models

associated with these strategies is worth exploring. In addition, theories of student ethical,

moral, and civic development would also be useful when it comes to civic education

program development and implementation at research-intensive universities (Hollander,

2011).

Implications for Practice

The significant findings associated with the strategies including exposure to civic

themes in the classroom and active learning methods suggest that these two strategies are

worth pursuing in an effort to reinvigorate the civic mission of public higher education.

The strategies are closely associated with themes and recommendations outlined in *A*

Crucible Moment: College Learning and Democracy's Future (2012). The report

provides some specific recommendations for practice. First, the report emphasizes that

the knowledge, skills, and experiences necessary for responsible citizenship should be

part of each students' general education program. "Civic learning and democratic

engagement remain optional rather than expected for almost all students….efforts to

elevate civic learning that are already in place should be vastly expanded to integrate

higher levels of knowledge, competencies, and commitments regardless of students' areas

of study" (p. 8). While mandates pose significant challenges, especially at large complex

public universities, there are steps that can be taken to integrate citizenship education into the undergraduate experience for all students. For example, the report goes on to suggest that all faculty can raise civic questions in relation to their field. "There is a civic dimension to every field of study, including career and technical fields, as well as to every workplace….workers at all levels need to anticipate the civic implications of their choices and actions" (p. 10). Other recommended approaches include civic engagement as part of a required freshmen course, common readings, and honorary awards (Hollander, 2010).

Second, the national task force report goes on to recommend that faculty need rewards and incentives for research, scholarship and engagement that expand civic knowledge and promote a commitment to the common good. This is a significant challenge that would require a review and revision of the promotion and tenure system for faculty. The need for faculty incentives and promotion and tenure rewards for engaged scholarship and teaching at research universities was also cited in the Hollander article.

Finally, the report outlines recommendations associated with the use of active learning methods stating that institutions of higher education should "capitalize on students' civic leadership and experience while further empowering them through rigorous study, engaged pedagogies, and opportunities to grapple with the pressing public problems of the day" (Hollander, 2010, p. 31). The report highlights pedagogies that foster civic learning. These include intergroup and deliberative dialogue, service learning, and collective civic problem solving. Further research is necessary to explore

the skills necessary to prepare faculty to utilize these methods, to examine the challenges associated with shifts in pedagogy, and to explore options for faculty preparation and training.

Limitations of the Study

This study has limitations that should be considered. First, the sample was confined to one institution that is a large public, land-grant university. According to the Carnegie Classifications, the study institution is a research university with a very high level of research activity. While the results of this study cannot be generalized to other post-secondary institutions, the design of the study could be replicated in order to explore comparisons with institutions of the same type or those with different characteristics. Another limitation is that the research design did not include variables associated with students' predispositions regarding decisions on where to attend college or choice of major field of study.

A second limitation is the research topic of citizenship education. "With so many conceptual and working definitions of what it means to be civically engaged, the confidence in being able to accurately (or validly) assess the meaning of this concept is compromised" (Finley, 2011, p. 18). Finley suggests that it might be better to examine civic engagement through practices that accompany it as opposed to a definition or label. This study did examine practices, but the outcomes of the model were comprised of a set of variables that are framed within a definition of civic engagement and social change. The use of the SRLS-R2 limited the analyses to the eight outcomes defined by the Social Change Model of Leadership Development. Given the broad topic of citizenship

education, there are many other dimensions and constructs that could be used to conduct research on this topic.

The third limitation centers on the reliability of scales in this study. In the pilot survey, the Cronbach alpha coefficient for the active learning independent variable was low (.36). The corrected inter-item correlation results revealed that the item "participated in an organized community service activity as part of the class and reflected or discussed it in class" was very low (.02) and the item-total statistics table indicated that the Cronbach alpha would increase to .74 if this item were removed. However, this active learning method was frequently cited in the literature and supported with empirical evidence (Finley, 2011). A decision was made to retain this item for the final survey. The Cronbach alpha was .71 for the active learning scale used in the final survey. There was one scale in the final survey with reliability below .70. The Cronbach alpha for the pre-college experiences control variable was .57, indicating that the individual items may not consistently measure the pre-college experiences construct, which is a limitation for this study. Pre-college experiences included involvement in a leadership role, participation in community service in or outside of class, and participation in a religious organization beyond attending a service. The item-total statistics table revealed that there would be no significant improvements from the deletion of any item so the scale was retained for data analysis.

The fourth limitation is the statistical techniques that were used to address key aspects of this study. The conceptual framework for this study emerged from the literature review, as opposed to a theoretical basis for creating hypotheses about direct

and indirect effects. Other statistical techniques such as path analysis require pre-specified causal hypotheses. Multiple regression analysis was chosen for this study because it evaluates the individual variables and blocks of variables that best explain results associated with the dependent variables. The block approach to regression was used to accommodate the large number of items associated with the independent and control variables, and in order to add categories to the regression model in stages.

Directions for Future Research

Two themes related to the development of civic knowledge skills, and attitudes were very prominent in the literature but were not included in the final conceptual framework. These themes included critical thinking and moral reasoning. Inclusion of these two variables would have posed a significant challenge regarding scope in the research design, in addition to challenges regarding a lack of common definition across disciplines. A study design that includes these two variables is an area for future research.

The ANOVA results revealed mostly a consistent linear pattern with the lowest mean resulting from the low level of exposure to civic themes and active learning methods, to the highest mean for high level of exposure. Exceptions occurred for exposure to civic themes for Consciousness of Self and Commitment, where the lowest mean resulted in medium level of exposure, and for exposure to active learning methods where the lowest mean resulted in medium exposure for the Change outcome. Why is there a variation in results for these particular outcomes?

The contrast in results associated race/ethnicity in this study and the University of Minnesota-Twin Cities MSL study warrant more in-depth analysis. In this study, race/ethnicity was recoded (given the small sample for non-white categories) to white and non-white prior to the analyses. Are there differences among the several distinct racial and ethnic groups? For example, the 2006 National MSL study revealed that African American students scored the highest across a majority of the outcomes, while Asian American students scored the lowest. What are the factors that influence higher scores among non-white students on several of the outcome scales? How can institutions use this information to inform programs and policies targeted toward recruitment and retention for these populations?

As stated previously in this dissertation, the topic of citizenship education is very broad and the conceptual framework included several complex variables. In this study, there were significant positive results associated with the scales that were created for exposure to civic themes and active learning methods in the classroom. The scales were created in an effort to manage scope for this study but the significant positive results suggest that more detailed research on the individual items/strategies associated with each scale would be useful in order to explore more specific recommendations for future implementation.

What are the skills necessary to teach active learning methods? How can faculty be prepared? Are there certain characteristics and/or background experiences needed to help students develop civic knowledge, skills, and attitudes? This series of questions is an area for future research.

The demand to assess and measure student learning outcomes in higher education is increasing. Future research might focus on the strategies outlined in this study (e. g., integrating civic themes in curriculum, active learning methods, enrollment in leadership minor courses) to examine possible linkages with common outcome measures such as retention, graduation rates, and student satisfaction.

Conclusion

The need to renew the civic mission of higher education is a dominant theme in the 2012 Department of Education Task Force Report, the literature on the civic mission of U.S. public higher education, and among national higher education organizations such as Campus Compact, the American Council on Education, the National Forum on Higher Education for the Public Good, the Association of Colleges and Universities, and the Democracy Imperative. The overarching research question for this study focused on institutional approaches vis-à-vis undergraduate curriculum and pedagogy that promote civic knowledge, skills, and attitudes. The findings from this study suggest that there are at least two strategies that are worth pursuing in an effort to prepare undergraduates to become future leaders who are equipped for responsible participation in a diverse, democratic society. The integration of civic themes in curriculum is one strategy to prepare students for responsible citizenship. Responsible citizens understand their role in a larger social system and their responsibility for social problems. Responsible citizens can see moral and civic dimensions of issues, can deal with the complexity of such issues, can make informed moral and civic judgments, and will take action when appropriate (Colby, Ehrlich, Beaumont, & Stephens, 2003). These authors assert that

effective integration of civic learning into the curriculum requires that students be emotionally and intellectually engaged in their learning. Active learning methods such as experiential learning, service learning, problem-based learning, and collaborative learning are possible methods to facilitate emotional and intellectual engagement in the classroom.

A Crucible Moment: College Learning and Democracy's Future (2012) identifies colleges and universities as among the nation's most valuable laboratories for civic learning and democratic engagement and calls on higher education to serve as one of the defining sites for learning and practicing democratic and civic responsibilities. This study provides some specific strategies to respond to that call.

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APPENDIX A

"Expert" Exercise
Survey Items Related to Independent Variables

CONSTRUCT SCALES – Independent Variables

"Expert" exercise
12/2/09

In attendance:

Thorunn Bjarnadottir	Coordinator, Office of International Programs Global Leadership Program Steering Committee
Carl Brandt	Director, College of Liberal Arts Student Services Leadership Minor Instructor Global Leadership Program Steering Committee
Christen Christopherson	College of Education & Human Development Student Services Leadership Minor Instructor
Amy Garrett Dikkers	Coordinator/Lecturer/completed Ph.D. Organizational Leadership, Policy and Development, College of Education & Human Development
Brian Fredrickson	Leadership Minor Instructor Bridge to Success Instructor
Barbara Kappler	Assistant Director for Programming and Training Office of International Programs Global Leadership Program Steering Committee
Catherina Kipper	Assistant Director of Academic Support, Multicultural Center for Academic Excellence Ph.D. student, Higher Education
LeeAnn Melin	Director of Student Engagement Former Director of Orientation & First Year Programs Ph.D. student, Higher Education

Karen Starry   Director, Graduate Student Services
                        Ph.D. student, Higher Education

Amelious Whyte   Chief of Staff, Office for Student Affairs
                        Ph.D. student, Higher Education

Patricia Jones Whyte   Acting Director, Office for Diversity in Graduate
                        Education
                        Ph.D. student, Higher Education

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1. Respect for differences
2. Ability to work with individuals different from ourselves

COMBINE OR SEPARATE?

Your recommendation:

<u>New CIRP items</u>
Rate yourself on the following traits compared to the average person your age:
(Highest 10%   Above avg. Avg. Below avg.   Lowest 10%)

- Ability to see the world from someone else's perspective

- Tolerance of others with different beliefs

- Openness to having my own views challenged

- Ability to discuss and negotiate controversial issues

- Ability to work cooperatively with diverse people

Socio-Cultural Discussions Scale used in the 2009 Multi-Institutional Survey of Leadership

Question 18   Never; Sometimes, Often, Very Often

- Talked about different lifestyles/customs
- Held discussions with students whose personal values were very different from your own
- Discussed major social issues such as peace, human rights, and justice
- Held discussions with students whose religious beliefs were very different from your own
- Discussed your views about multiculturalism and diversity
- Held discussions with students whose political opinions were very different from your own

NSSE Items
1u – had serious conversations with students of different race/ethnicities
1v -   "   "   "   who are very different from you in terms of their religious beliefs, political opinions, or personal values
6e – tried to better understand someone else's views by imagining how an issue looks from his or her perspective

11e To what extent has the institution contributed to knowledge, skills and development in the following areas:
    h. working effectively with others
    i. understanding people of other racial and ethnic backgrounds

#10 Extent that the institution emphasizes
    c. encouraging contact among students from different economic, social, and racial or ethnic backgrounds

U. of California Undergraduate Survey
    #2 Rate your level of proficiency in the following areas when you started at this campus and now (v. poor   poor   fair   good   very good)

    -Ability to appreciate, tolerate, and understand racial and ethnic diversity
    -Ability to appreciate cultural and global diversity
    -Understanding international perspectives (economic, political, social, cultural)

AAC&U Teamwork value rubric??
Contributes to team meetings
Facilitates the contributions of team members
Displays necessary work ethic
Fosters constructive team climate
Response to conflict

TASK 1: Combine/group questions and items from the lists above – items that relate to one another. Add anything that is missing.

TASK 2: Select the 1 -3 items that best represent this variable

Problem solving

*Problem Solving Inventory
35-item self report measure on a 6 point likert scale
Cronbach's alpha = .90 for entire inventory; .72 to .85 for subtests
Self reported
Paul Heppner (1998)

*Also in Bringle scale book – assesses an individual's awareness and evaluation of problem solving abilities or style, and thus provides a global appraisal of that individual as a problem solver

Subscales:
- Problem-solving confidence
- Approach-avoidance
- Personal control

AAC&U Value Rubric (rate 0 – 4)
Define problem
Identify strategies
Generate solutions
Select solution(s)
Evaluate outcomes

<u>Programme for International Student Assessment (Organisation for economic Co-operation and development, 2003) – PISA 2003 Assessment</u>
<u>Framework: Mathematics, Reading, Science and Problem-Solving Skills</u>

Problem-solving processes
       Understand the problem
       Characterize the problem
       Represent the problem
       Solve the problem
       Reflect on the solution
       Communicate the problem solution

<u>NSSE</u>
To what extent has your experience at this institution contributed to your knowledge, skills and personal development in the following areas?

m. Solving complex real-world problems

TASK 1: Combine/group questions and items from the lists above – items that relate to one another. Add anything that is missing.

TASK 2: Select the 1 -3 items that best represent this variable

Social responsibility

AAC&U Value Rubric for Civic Engagement
Diversity of community and cultures
Knowledge
Civic-Identity and Commitment
Civic Communication
Civic Action and reflection
Civic contexts/Structures

<u>Civic Responsibility Survey: K-12 students engaged in service-learning</u> (Andy Furco, Parisa Muller, Mary Sue Ammon

Level 3 pre-post survey based on
Strongly disagree   DA   Slightly DA Slightly A Agree SA

#4 it is my responsibility to help improve the community
#7 I feel a personal obligation to contribute in some way to community
#11 Helping other people is something I am personally responsible for
#20 I am or plan to become actively involved in issues that positively affect the community
#21 Being concerned about state and local issues is an important responsibility for everyone
#22 Being actively involved in community issues is everyone's responsibility, including mine
#24 I understand how political and social policies or issues affect members in the community

NSSE
#11 o Extent that the institution has contributed to knowledge, skills and personal Development in the area of "contributing to the welfare of your community:

U. of California Undergraduate Experience Survey
#3 Rate your abilities now and when you first began at this university –
understanding the importance of personal and social responsibility.
(very poor, poor, fair, good, v. good, excellent)

TASK 1: Combine/group questions and items from the lists above – items that relate to one another. Add anything that is missing.

TASK 2: Select the 1 -3 items that best represent this variable

APPENDIX B

Construct Exercise Results
(Individual responses and summary notes from large group discussion)

Note: the majority of participants completed the task to group the items and did not respond to the 2 -3 items that would best represent the variable. The latter came out during the large group discussion. One of the 11 participants was not able to participate in the individual exercise, but did participate in the large group discussion.

Respect for differences/Ability to work with individuals different from ourselves

Task: Combine/group questions and items from the lists – items that relate to one another

Individual responses

Participant 1
- Abilities such as facilitate conversations
- Appreciation of…
- Behavior changes

Participant 2
- Behavior oriented (getting at what students have done)
- Evaluation of institutional contributions
- Self Assessment
- Teamwork

Participant 3
- Openness to being challenged/negotiate controversial issues/serious conversations on social issues
- Discuss differences (values, religious beliefs, views on multiculturalism, diversity, political opinions, economic, social, racial, ethnic)
- Appreciation (of cultural and global diversity, international perspectives)
- Grouping of items related to the role of the institution

Participant 4
- Knowledge items: Experiences/discussions with exposure to students with personal values that are very different, political opinions that are very different, religious beliefs

- Attitude items: CIRP attitude items (but don't use the scale format), NSSE 6e, items from the California survey
- Skill items: CIRP 5, NSSE 11e, AAC&U rubric
- Group of items related to the role of the institution: NSSE 11e, NSSE 10o, California survey

Participant 5
- Several items relate to perspective taking: ability to see the world from someone else's perspective, tried to better understand

Participant 6
- Perspectives
- "Tolerance" connotes passive/aggressiveness
- Discussions – items where engagement is required
- Group of items related to the role of the institution

Participant 7
- Behavioral (conversations with people who are different/talked about diversity issues)
- Understanding (tried to understand others)
- Institutional conditions (to what extent has the institution contributed or emphasized)
- Proficiency (ability to/understanding/see the world)

Participant 8
- Group of items relate to ability/comfort level with holding discussions with individuals with different values /beliefs
- Group of items relate to one's openness/ability to understand/appreciate other views
- Group of items relate to one's willingness to reveal own views and to be questioned
- Group of items relate to institution contributions

Participant 9
- Understanding those who are different
- Working with those who are different
- Discussing issues with those who are different
  Appreciation of differences

Participant 10
- Tolerance of others with different beliefs/Hold discussions with students whose political opinions were very different from your own/NSSE 1v
- Openness to having my own views challenged/SCD scale 2, 3, 5

- Ability to see world from someone else's perspective/NSSE 6e
- Role of the institution/NSSE 10

Notes recorded from the large group discussion (grouped by individual comments and related responses)

1. Combine or separate respect for differences and ability to work with individuals different from ourselves? Consensus to reframe the description of this variable!

2. Discuss groupings:

Accomplishment oriented
Behavior oriented (discussion oriented) – think about non-talking action items
How the institution contributes

Knowledge –exposure to
Skills – 11e on NSSE/AACU
Attitudes – CIRP/NSSE
Institution

Openness to being challenged/Negotiating controversial issues/serious conversation

Discussing differences – Action item needed

Appreciation

Me/who influenced

Respect for differences

Appreciation for differences different than understanding it
Need action item – interaction
        Have my views changed based on
What do we mean by "differences"
        Political/economic/

Individual understanding
Tolerance
Discussion – and items that require engagement

Need items – open to being challenged

Difference – do we mean "style" or diversity?
CIRP questions are helpful

Do not like the term "tolerate" (large group consensus)
    But sometimes it can be positive

Drawn to action items

Do you tolerate, respect, appreciate, engage, advocate
    Have you been exposed to it in the classroom?

Do not like the rating scale for CIRP

College/Major - particular courses/programs will have much more emphasis on this variable

Have you ever had course in which………..

Have you been exposed to ……….in 1 course/2 courses

Active learning methods – keep contained to "in-classroom teaching techniques"

Problem Solving

Task: Combine/group questions and items from the lists – items that relate to one another

<u>Individual responses</u>

Participant 1
- Understand what led to the problem/the context that the problem sits in/identifying what the problem is
- Identifying solutions
- Identifying possible strategies

Participant 2
- Solving complex world problems stands out (NSSE)
- AAC&U rubric items could be melded with NSSE….have you had a course in which you learned to identify strategies to solve complex real world problems

Participant 3
- Problem solving process – from understand/identify to solution (knowledge)
- Implement a solution/take action /communicate (skills)
- Confidence in problem solving ability (attitude)

Participant 4
- Define/identify problem
- Generate solutions/select solutions/evaluate outcomes of multiple solutions
- Would you characterize yourself as a problem solver

Participant 5
- Agency – sense of agency to even a initiate or revisit a "solving" process
- Address
- Assess

Participant 6
- Problem solving process
- Solving
- Assessment

Participant 7
- Skills related to process (framework – do respondents have a framework?)
- Self-efficacy – are you effective
- Behavior (implement solution and/or seek out information, do you do this effectively, see complexity of a problem, attempt to solve)

Participant 8
- Define the problem and characteristics of the problem
- Identify/generate/select solutions and solve
- Reflect

Participant 9
- Address
- Attempt to solve
- Act

Participant 10
- Problem solving process
- Action in response to identified problem
- Confidence as a problem solver

Notes recorded from the large group discussion (grouped by individual comments and related responses)

Solving ………can students actually "solve"
Focus more on action steps – can they take steps to

Attempted to implement

Ability to communicate what they came up with

Problem solving process
Implement a solution – action
Confidence in their problem solving ability

Knowledge – the process
Skills Attitude – done something with it
Attitude – Your confidence

A paper I've written
Working in a group
Working with a peer

What is the "problem" …………define it as an issue/concern
        Math students will see it as formula to compute
        Problem is a condition

Negotiating different perspectives

At what level do you think you can have an impact

Identify the problem from multiple perspectives
Multiple strategies

NSSE – solving complex world problems
    Integrate AACU rubric

Ron Heiftz – technical vs. adaptive challenge (use term issue vs. challenge)

Avoid technical process……….need to get away from basic problem solving that would likely be in every class

Need to acknowledge development/growth in this area

SUMMARY
Focus on issue/challenge – not on technical
Process/action/reflection

Social Responsibility

Task: Combine/group questions and items from the lists – items that relate to one another

<u>Individual responses</u>

Participant 1
- Identity
- Commitment/responsibility
- Actions taken

Participant 2
- Items from the K-12 survey capture this variable

Participant 3
- Understanding of local, state, community issues/what is a shared issue, shared responsibility
- Personal responsibility for
- Ability to act on these issues/what you have done

Participant 4
- Ask first about civic responsibility
- Then ask about what they did about it

Participant 5
- No notes on this variable

Participant 6
- Personal responsibility
- Shared responsibility
- Knowledge/appreciation

Participant 7
- Value: personal sense of responsibility/belief that others should care and act
- Knowledge: how systems work/power structures
- Actions: I participate in/volunteer/interact

Participant 8
- Personal responsibility
- Knowledge
- Institution impact

Participant 9
- Action items are missing

Participant 10
- Civic identity and commitment
- Civic action
- Knowledge

<u>Notes recorded from the large group discussion</u> (grouped by individual comments and related responses)

What is the opposite of the K-12 questions for example #21 and 22 – do you feel you have a personal obligation?

"Actions" are missing

Did you have courses where you had to take action
Did you have courses where you were exposed

Knowledge
Skills
Attitude

Understanding the issue as a shared responsibility
What personal responsibility do I feel toward the issue
Ability to act on the issue

Appendix C

Socially Responsible Leadership Scale – Revision 2

Used in the 2009 Multi-Institutional Survey on Leadership
A project of the National Clearinghouse for Leadership Programs in conjunction with the
Center for Student Studies

SRLS Dependent Variable Questions:

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

1. I am open to others' ideas (Controversy w/Civility)

2. Creativity can come from conflict (Controversy w/Civility)

3. I value differences in others (Controversy w/Civility)

4. I am able to articulate my priorities (Consciousness of Self)

5. Hearing differences in opinions enriches my thinking
   (Controversy w/Civility)

6. I have low self esteem (Consciousness of Self)

7. I struggle when group members have ideas that are different from mine
   (Controversy w/Civility)

8. Transition makes me uncomfortable (Change)

9. I am usually self confident (Consciousness of Self)

10. I am seen as someone who works well with others (Collaboration)

11. Greater harmony can come out of disagreement (Controversy w/Civility)

12. I am comfortable initiating new ways of looking at things (Change)

13. My behaviors are congruent with my beliefs (Congruence)

14. I am committed to a collective purpose in those groups to which I belong (Common Purpose)

15. It is important to develop a common direction in a group in order to get anything done (Common Purpose)

16. I respect opinions other than my own (Controversy w/Civility)

17. Change brings new life to an organization (Change)

18. The things about which I feel passionate about have priority in my life (Consciousness of Self)

19. I contribute to the goals of the group (Common Purpose)

20. There is an energy in doing something a new way (Change)

21. I am comfortable when someone disagrees with me (Controversy w/Civility)

22. I know myself pretty well (Consciousness of Self)

23. I am willing to devote the time and energy to things that are important to me (Commitment)

24. I stick with others through difficult times (Commitment)

25. When there is a conflict between two people, one will win and the other will lose (Controversy w/Civility)

26. Change makes me uncomfortable (Change)

27. It is important for me to act upon my beliefs (Congruence)

28. I am focused on my responsibilities (Commitment)

29. I can make a difference when I work with others on a task (Collaboration)

30. I actively listen to what others have to say (Collaboration)

31. I think it is important to know others peoples' priorities (Congruence)

32. My actions are consistent with my values (Congruence)

33. I believe I have a responsibility to my community (Citizenship)

34. I could describe my personality (Consciousness of Self)

35. I have helped to shape the mission of the group (Collaboration)

36. New ways of doing things frustrate me (Change)

37. Common values drive an organization (Common Purpose)

38. I give time to making a difference for someone else (Citizenship)

39. I work well in changing environments (Change)

40. I work with others to make communities better places (Citizenship)

41. I can describe how I am similar to other people (Consciousness of Self)

42. I enjoy working with others toward common goals (Collaboration)

43. I am open to new ideas (Change)

44. I have the power to make a difference in my community (Citizenship)

45. I look for new ways to do something (Change)

46. I am willing to act for the rights of others (Citizenship)

47. I participate in activities that contribute to the common good (Citizenship)

48. Others would describe me as a cooperative group member (Collaboration)

49. I am comfortable with conflict (Controversy w/Civility)

50. I can identify between positive and negative Change (Change)

51. I can be counted on to do my part (Commitment)

52. Being seen as a person of integrity is important to me (Congruence)

53. I follow through on my promises (Commitment)

54. I hold myself accountable for responsibilities I agree to (Commitment)

55. I believe I have a civic responsibility to the greater public (Citizenship)

56. Self-reflection is difficult for me (Consciousness of Self)

57. Collaboration produces better results (Collaboration)

58. I know the purpose of the groups to which I belong (Common Purpose)

59. I am comfortable expressing myself (Consciousness of Self)

60. My contributions are recognized by others in the groups I belong to (Common Purpose)

61. I work well when I know the collective values of the group (Common Purpose)

62. I share my ideas with others (Controversy w/Civility)

63. My behaviors reflect my beliefs (Congruence)

64. I am genuine (Congruence)

65. I am able to trust the people with whom I work (Collaboration)

66. I value the opportunities that allow me to contribute to my community (Citizenship)

67. I support what the group is trying to accomplish (Common Purpose)

68. It is easy for me to be truthful (Congruence)

69. It is important to me to play an active role in my communities (Citizenship)*

70. I volunteer my time to the community (Citizenship)*

71. I believe my work has a greater purpose for the larger community (Citizenship)*

*New items added to the SLRS-Revision 2 for the 2009 Multi-Institutional Study of Leadership

APPENDIX D

Pilot Survey Invitation and Instrument

PILOT SURVEY INVITATION

You are invited to participate in the pilot phase of a research study designed to explore strategies that promote the development of civic knowledge, skills, and attitudes as part of the undergraduate experience at a public university. Your responses will contribute to a national movement to renew the civic mission of public higher education. The study is being conducted by June Nobbe, a Ph.D. student in Educational Policy and Administration – Higher Education.

The survey will take about 15 minutes. Your participation is completely voluntary and you may withdraw from participating at any time. Your decision whether or not to participate will not affect your relationship with this class, program, or the institution in any way. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Your responses will be kept strictly confidential and will only be used to evaluate the internal reliability of the survey instrument. Your student ID number is requested in order to remove you from the sample for the final administration of this survey. The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

Contacts and Questions:

The researcher conducting this study is June Nobbe. You may ask any questions you have now. If you have questions later, you are encouraged to contact June at 209 Appleby Hall, 612-625-6531, nobbe001@umn.edu, or her advisor Darwin Hendel at 330 Wulling Hall, 612-625-0129, hende001@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.
Thank you for your participation in this pilot phase!

June Nobbe
Ph.D. Candidate, Educational Policy and Administration

SURVEY INSTRUMENT

1. What will your class level be at the start of Fall Semester 2010? (Circle One)

Junior   1

Senior (4th year and beyond   2

Unclassified   3

2. With which gender do you identify?

Female   1

Male   2

Transgender   3

Genderqueer   4

Decline to state   5

Other   6

3. What is your college of enrollment? (Circle One)

Liberal Arts   1

Biological Sciences   2

Design   3

Education and Human Development   4

Food, Agriculture, and Natural Resource Sciences   5

Management   7

Nursing   8

Technology   9

4. Is your major field of study focused on hard or soft sciences? (Circle One)

Hard: 1
Clearly defined paradigms and methods of study (examples are
Chemistry, Biology, Mathematics, Engineering, Forestry, Agriculture)

Soft: 2
Paradigms and methods of study are not clearly defined (examples are
Education, Political Science, Sociology, Geography, English, Languages)

5. What is your age? (Record your age)

_____

6. What is your racial or ethnic identification?

                                                          (Circle One)

White/Caucasian   1

Asian/Asian American/Pacific Islander   2

Black, African, African American   3

Hispanic, Chicano, Latino, or Hispanic American   4

Middle Eastern, Arab, Arab American   5

Native American, American Indian, or Alaskan Native   6

Other   7

7. <u>Before you started college</u>, how often did you engage in the following activities while in high school:

1 = never   2 = sometimes   3 = often   4 = very often

(Circle one for each item)

Held a leadership position, office, or role in a student club, organization, or sport	1	2	3	4
Participated in community service	1	2	3	4
Participated in a religious organization (beyond attending a service)	1	2	3	4
Participated in a service learning activity or course	1	2	3	4

8. During your undergraduate experience at this institution, how often have you been asked in the classroom to:

1 = never   2 = sometimes   3 = often   4 = very often

(Circle one)

Acknowledge personal differences	1	2	3	4
Appreciate the world from someone else's perspective	1	2	3	4
Interact with someone with views that are different from your own	1	2	3	4
Discuss and navigate controversial issues	1	2	3	4
Define an issue or challenge	1	2	3	4
Identify possible solutions for an issue or challenge	1	2	3	4
Implement a solution to an issue or challenge	1	2	3	4
Reflect on the solution of an issue or challenge	1	2	3	4
Think about, or conduct research on community or social issues	1	2	3	4

Reflect on community or social issues as a shared responsibility	1	2	3	4
Reflect on your individual responsibility for community or social issues	1	2	3	4
Act on community or social issues	1	2	3	4

9. During your undergraduate experience at this institution, have you been exposed to the following teaching methods in the classroom?

1 = no   2 = yes
(Circle one)

Worked in a small group or team on a project, assignment, or to solve a problem that has been assigned by the instructor	1	2
Worked in a small team where each member's efforts are necessary for group success	1	2
Translated subject matter to concrete experiences and reflecting on those experiences	1	2
Learned subject matter through the use of actual problems or issues	1	2
Participated in an organized community service activity as part of the class and reflected or discussed it in class	1	2

10. <u>Since you started college</u>, how often have you engaged in the following activities:

1 = never   2 = sometimes   3 = Often   4 = Very Often
(Circle one for each item)

Involvement in a college club, organization, or sport	1	2	3	4
Held a leadership position, office, or role in a college club, organization, or sport	1	2	3	4
Participated in a non-credit bearing leadership program	1	2	3	4

Studied abroad	1	2	3	4
Participated in community service	1	2	3	4
Participated in a religious organization (beyond attending a service)	1	2	3	4
Participated in a service learning activity or course	1	2	3	4

11. During your college experience, have you enrolled in the following leadership minor courses?

1 = no   2 = yes

(Circle one)

Personal Leadership in the University	1	2
Leadership, You, and Your Community	1	2
Leadership Minor Field Experience	1	2
Leadership for Global Citizenship	1	2

12. Please indicate your level of agreement with the following items:

For the statements that refer to a group, think of the most effective, functional of which you have been a part. This might be a formal organization or an informal study group. For consistency, use the same group in all your responses.

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I am open to others' ideas	1	2	3	4	5
Creativity can come from conflict	1	2	3	4	5
I value differences in others	1	2	3	4	5
I am able to articulate my priorities	1	2	3	4	5
Hearing differences in opinions enriches my thinking	1	2	3	4	5

| I have low self esteem | 1 | 2 | 3 | 4 | 5 |

| I struggle when group members have ideas that are different from mine | 1 | 2 | 3 | 4 | 5 |

| Transition makes me uncomfortable | 1 | 2 | 3 | 4 | 5 |

| I am usually self confident | 1 | 2 | 3 | 4 | 5 |

| I am seen as someone who works well with others | 1 | 2 | 3 | 4 | 5 |

| Greater harmony can come out of disagreement | 1 | 2 | 3 | 4 | 5 |

| I am comfortable initiating new ways of looking at things | 1 | 2 | 3 | 4 | 5 |

| My behaviors are congruent with my beliefs | 1 | 2 | 3 | 4 | 5 |

| I am committed to a collective purpose in those groups to which I belong | 1 | 2 | 3 | 4 | 5 |

| It is important to develop a common direction in a group in order to get anything done | 1 | 2 | 3 | 4 | 5 |

| I respect opinions other than my own | 1 | 2 | 3 | 4 | 5 |

| Change brings new life to an organization | 1 | 2 | 3 | 4 | 5 |

| The things about which I feel passionate about have priority in my life | 1 | 2 | 3 | 4 | 5 |

| I contribute to the goals of the group | 1 | 2 | 3 | 4 | 5 |

| There is an energy in doing something a new way | 1 | 2 | 3 | 4 | 5 |

| I am comfortable when someone disagrees with me | 1 | 2 | 3 | 4 | 5 |

| I know myself pretty well | 1 | 2 | 3 | 4 | 5 |

| I am willing to devote the time and energy to things that are important to me | 1 | 2 | 3 | 4 | 5 |

| I stick with others through difficult times | 1 | 2 | 3 | 4 | 5 |

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

When there is a conflict between two people, one will win and the other will lose	1	2	3	4	5
Change makes me uncomfortable	1	2	3	4	5
It is important for me to act upon my beliefs	1	2	3	4	5
I am focused on my responsibilities	1	2	3	4	5
I can make a difference when I work with others on a task	1	2	3	4	5
I actively listen to what others have to say	1	2	3	4	5
I think it is important to know others peoples' priorities	1	2	3	4	5
My actions are consistent with my values	1	2	3	4	5
I believe I have a responsibility to my community	1	2	3	4	5
I could describe my personality	1	2	3	4	5
I have helped to shape the mission of the group	1	2	3	4	5
New ways of doing things frustrate me	1	2	3	4	5
Common values drive an organization	1	2	3	4	5
I give time to making a difference for someone else	1	2	3	4	5
I work well in changing environments	1	2	3	4	5
I work with others to make communities better places	1	2	3	4	5
I can describe how I am similar to other people	1	2	3	4	5
I enjoy working with others toward common goals	1	2	3	4	5
I am open to new ideas	1	2	3	4	5

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I have the power to make a difference in my community	1	2	3	4	5
I look for new ways to do something	1	2	3	4	5
I am willing to act for the rights of others	1	2	3	4	5
I participate in activities that contribute to the common good	1	2	3	4	5
Others would describe me as a cooperative group member	1	2	3	4	5
I am comfortable with conflict	1	2	3	4	5
I can identify between positive and negative change	1	2	3	4	5
I can be counted on to do my part	1	2	3	4	5
Being seen as a person of integrity is important to me	1	2	3	4	5
I follow through on my promises	1	2	3	4	5
I hold myself accountable for responsibilities I agree to	1	2	3	4	5
I believe I have a civic responsibility to the greater public	1	2	3	4	5
Self-reflection is difficult for me	1	2	3	4	5
Collaboration produces better results	1	2	3	4	5
I know the purpose of the groups to which I belong	1	2	3	4	5
I am comfortable expressing myself	1	2	3	4	5
My contributions are recognized by others in the groups I belong to	1	2	3	4	5
I work well when I know the collective values of the group	1	2	3	4	5
I share my ideas with others	1	2	3	4	5
My behaviors reflect my beliefs	1	2	3	4	5

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I am genuine	1	2	3	4	5
I am able to trust the people with whom I work	1	2	3	4	5
I value the opportunities that allow me to contribute to my community	1	2	3	4	5
I support what the group is trying to accomplish	1	2	3	4	5
It is easy for me to be truthful	1	2	3	4	5
It is important to me to play an active role in my communities	1	2	3	4	5
I volunteer my time to the community	1	2	3	4	5
I believe my work has a greater purpose for the larger community	1	2	3	4	5

Thank you for completing the survey! Your participation is appreciated!

APPENDIX E

Final Survey Instrument

**UNDERGRADUATE CIVIC DIMENSIONS
SURVEY INSTRUMENT**

1. What is your current class level?   (Circle One)

Junior	1
Senior (4th year and beyond	2
Unclassified	3

2. With which gender do you identify?

Female	1
Male	2
Transgender	3
Genderqueer	4
Decline to state	5
Other	6

3. What is your college of enrollment?   (Circle One)

Liberal Arts	1
Biological Sciences	2
Carlson School of Management	3
Design	4
Education and Human Development	5

Food, Agriculture, and Natural Resource Sciences   6

Nursing   7

Technology (Science & Engineering)   8

4. Is your major field of study focused on hard or soft sciences?   (Circle One)

Hard: 1
Clearly defined paradigms and methods of study (examples are
Chemistry, Biology, Mathematics, Engineering, Forestry, Agriculture)

Soft: 2
Paradigms and methods of study are not clearly defined (examples are
Education, Political Science, Sociology, Geography, English, Languages)

5. What is your age? (Record your age)

_____

6. What is your racial or ethnic identification?
                                                         (Circle One)

White/Caucasian   1

Asian/Asian American/Pacific Islander   2

Black, African, African American   3

Hispanic, Chicano, Latino, or Hispanic American   4

Middle Eastern, Arab, Arab American   5

Native American, American Indian, or Alaskan Native   6

Other   7

7. <u>Before you started college</u>, how often did you engage in the following activities while in high school:

1 = never   2 = sometimes   3 = Often   4 = Very Often

(Circle one for each item)

Held a leadership position, office, or role in a student club, organization, or sport	1	2	3	4
Participated in community service that was not part of a high school class	1	2	3	4
Participated in an organized community service activity as part of a high school class and reflected and discussed it in class	1	2	3	4
Participated in a religious organization (beyond attending a service)	1	2	3	4

8. During your undergraduate experience at this institution, how often have you been asked <u>in the classroom</u> to:

1 = never   2 = sometimes   3 = Often   4 = Very Often

(Circle one)

Acknowledge personal differences	1	2	3	4
Appreciate the world from someone else's perspective Interact with someone with views that are different from your own	1	2	3	4
Discuss and navigate controversial issues	1	2	3	4
Define an issue or challenge	1	2	3	4
Reflect on the solution of an issue or challenge	1	2	3	4
Think about, or conduct research on community or social issues	1	2	3	4
Reflect on community or social issues as a shared responsibility	1	2	3	4
Reflect on your individual responsibility for community or social issues	1	2	3	4

Act on community or social issues   1   2   3   4

9. During your undergraduate experience at this institution, how often have you been exposed to the following teaching methods <u>in the classroom</u>?

1 = never   2 = sometimes   3 = often   4 = very often

(Circle one for each item)

Worked in a small group or team on a project, assignment, or to solve a problem that has been assigned by the instructor	1	2	3	4
Worked in a small team where each member's efforts are necessary for group success	1	2	3	4
Translated subject matter to concrete experiences and reflecting on those experiences	1	2	3	4
Learned subject matter through the use of actual problems or Issues	1	2	3	4
Participated in an organized community service activity as part of the class and reflected or discussed it in class	1	2	3	4

10. <u>Since you started college</u>, how often have you engaged in the following activities:

1 = never   2 = sometimes   3 = often   4 = very often
(Circle one for each item)

Involvement in a college club, organization, or sport	1	2	3	4
Held a leadership position, office, or role in a college club, organization, or sport	1	2	3	4
Participated in a non-credit bearing leadership program	1	2	3	4
Studied abroad	1	2	3	4
Participated in community service that was not part of a course	1	2	3	4
Participated in a religious organization (beyond attending a service)	1	2	3	4

11. During your college experience, have you enrolled in the following leadership minor courses?

$$1 = no \qquad 2 = yes$$

(Circle one)

Personal Leadership in the University	1	2
Leadership, You, and Your Community	1	2
Leadership Minor Field Experience	1	2
Leadership for Global Citizenship	1	2

12. Please indicate your level of agreement with the following items:

For the statements that refer to a group, think of the most effective, functional of which you have been a part. This might be a formal organization or an informal study group. For consistency, use the same group in all your responses.

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I am open to others' ideas	1	2	3	4	5
Creativity can come from conflict	1	2	3	4	5
I value differences in others	1	2	3	4	5
I am able to articulate my priorities	1	2	3	4	5
Hearing differences in opinions enriches my thinking	1	2	3	4	5
I have low self esteem	1	2	3	4	5
I struggle when group members have ideas that are different from mine	1	2	3	4	5
Transition makes me uncomfortable	1	2	3	4	5

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I am usually self confident	1	2	3	4	5
I am seen as someone who works well with others	1	2	3	4	5
Greater harmony can come out of disagreement	1	2	3	4	5
I am comfortable initiating new ways of looking at things	1	2	3	4	5
My behaviors are congruent with my beliefs	1	2	3	4	5
I am committed to a collective purpose in those groups to which I belong	1	2	3	4	5
It is important to develop a common direction in a group in order to get anything done	1	2	3	4	5
I respect opinions other than my own	1	2	3	4	5
Change brings new life to an organization	1	2	3	4	5
The things about which I feel passionate about have priority in my life	1	2	3	4	5
I contribute to the goals of the group	1	2	3	4	5
There is an energy in doing something a new way	1	2	3	4	5
I am comfortable when someone disagrees with me	1	2	3	4	5
I know myself pretty well	1	2	3	4	5
I am willing to devote the time and energy to things that are important to me	1	2	3	4	5
I stick with others through difficult times	1	2	3	4	5
When there is a conflict between two people, one will win and the other will lose	1	2	3	4	5
Change makes me uncomfortable	1	2	3	4	5

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

It is important for me to act upon my beliefs	1	2	3	4	5
I am focused on my responsibilities	1	2	3	4	5
I can make a difference when I work with others on a task	1	2	3	4	5
I actively listen to what others have to say	1	2	3	4	5
I think it is important to know others peoples' priorities	1	2	3	4	5
My actions are consistent with my values	1	2	3	4	5
I believe I have a responsibility to my community	1	2	3	4	5
I could describe my personality	1	2	3	4	5
I have helped to shape the mission of the group	1	2	3	4	5
New ways of doing things frustrate me	1	2	3	4	5
Common values drive an organization	1	2	3	4	5
I give time to making a difference for someone else	1	2	3	4	5
I work well in changing environments	1	2	3	4	5
I work with others to make communities better places	1	2	3	4	5
I can describe how I am similar to other people	1	2	3	4	5
I enjoy working with others toward common goals	1	2	3	4	5
I am open to new ideas	1	2	3	4	5
I have the power to make a difference in my community	1	2	3	4	5
I look for new ways to do something	1	2	3	4	5
I am willing to act for the rights of others	1	2	3	4	5

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I participate in activities that contribute to the common good	1	2	3	4	5
Others would describe me as a cooperative group member	1	2	3	4	5
I am comfortable with conflict	1	2	3	4	5
I can identify between positive and negative change	1	2	3	4	5
I can be counted on to do my part	1	2	3	4	5
Being seen as a person of integrity is important to me	1	2	3	4	5
I follow through on my promises	1	2	3	4	5
I hold myself accountable for responsibilities I agree to	1	2	3	4	5
I believe I have a civic responsibility to the greater public	1	2	3	4	5
Self-reflection is difficult for me	1	2	3	4	5
Collaboration produces better results	1	2	3	4	5
I know the purpose of the groups to which I belong	1	2	3	4	5
I am comfortable expressing myself	1	2	3	4	5
My contributions are recognized by others in the groups I belong to	1	2	3	4	5
I work well when I know the collective values of the group	1	2	3	4	5
I share my ideas with others	1	2	3	4	5
My behaviors reflect my beliefs	1	2	3	4	5
I am genuine	1	2	3	4	5
I am able to trust the people with whom I work	1	2	3	4	5

1 = Strongly Disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

(Circle one for each item)

I value the opportunities that allow me to contribute to
my community   1   2   3   4   5

I support what the group is trying to accomplish   1   2   3   4   5

It is easy for me to be truthful   1   2   3   4   5

It is important to me to play an active role in my communities   1   2   3   4   5

I volunteer my time to the community   1   2   3   4   5

I believe my work has a greater purpose for the larger
community   1   2   3   4   5

13. Please provide your name and email address if you wish to be entered into the drawing for one of 16 - $30 gift cards to Target:

Name_____

Email _____

APPENDIX F

Email Survey Invitation

SUBJECT: Undergraduate Civic Dimensions Survey

FROM: June Nobbe, Ph.D. Candidate

Dear (insert student name),

You are invited to participate in a research study designed to explore strategies that promote the development of civic knowledge, skills, and attitudes as part of the undergraduate experience at a public university. Your responses will contribute to a national movement to renew the civic mission of public higher education. The study is being conducted by a Ph.D. student in Higher Education.

Participation is easy and if you complete the survey, you can enter yourself into a drawing to win one of 16 - $30 gift cards to Target.

To participate in this study, click on this link and follow the instructions to complete the survey.

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

The survey will take about 15 minutes. Your participation is completely voluntary and you may withdraw from participating at any time. Your decision whether or not to participate will not affect your relationship with this institution in any way.

The researcher conducting this study is June Nobbe. You may ask any questions you have now. If you have questions later, you are encouraged to contact June at 209 Appleby Hall, 612-625-6531, nobbe001@umn.edu, or her advisor Darwin Hendel at 330 Wulling Hall, 612-625-0129, hende001@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

Thanks for your participation,
June Nobbe, Ph.D. Candidate, Educational Policy & Administration

APPENDIX G

Email Survey Reminder

SUBJECT: Undergraduate Civic Dimensions Survey

FROM: June Nobbe, Ph.D. Candidate

Dear (Student Name),

Previously we contacted you regarding a research study designed to explore strategies that promote the development of civic knowledge, skills, and attitudes as part of the undergraduate experience at a public university. Your responses will contribute to a national movement to renew the civic mission of public higher education. The study is being conducted by a Ph.D. student in Higher Education.

Participation is easy and if you complete the survey, you can enter yourself into a drawing to win one of 16 - $30 gift cards to Target.

To participate in the study, click on this link and follow the instructions to complete the survey.

The survey will take about 20 minutes. Your participation is completely voluntary and you may withdraw from participating at any time. Your decision whether or not to participate will not affect your relationship with this institution in any way.

Your responses will be kept strictly confidential. Your name and information will not be shared with the researcher. Records will be secured by the Office for Institutional Research.

If you have any questions about this survey, please contact June Nobbe, nobbe001@umn.edu, 612-625-6531, 209 Appleby Hall.

Thanks for your participation,
June Nobbe, Ph.D. Candidate, Educational Policy & Administration

APPENDIX H

Summary of Individual Variable Effect in the Full Regression Model

Dependent variable/ Individual variables in full regression model	Std. Error	β
Consciousness of Self		
Gender	.055	.156*
Race/ethnicity	.070	.003
Pre-college experiences	.044	.037
Current class level	.046	.028
Biological Sciences	.101	.066
School of Management	.090	-.116
College of Education	.101	-.043
Sciences & Engineering	.099	-.088
Other college of enrollment	.107	.000
Hard or Soft Sciences	.072	.074
College experiences	.046	.108
Exposures to civic themes	.052	.102
Exposure to active learning methods	.060	.088
Exposure to leadership minor course	.070	.010

(continued)

Dependent variable/ Individual variables in full regression model	Std. Error	β
Congruence		
Gender	.056	.051
Race/ethnicity	.071	-.039
Pre-college experiences	.045	.109
Current class level	.047	.027
Biological Sciences	.103	.021
School of Management	.091	-.140*
College of Education	.102	-.028
Sciences & Engineering	.101	-.024
Other college of enrollment	.108	-.065
Hard or Soft Sciences	.073	.007
College experiences	.046	.029
Exposures to civic themes	.052	.181**
Exposure to active learning methods	.061	.106
Exposure to leadership minor course	.071	.031

(continued)

Dependent variable/ Individual variables in full regression model	Std. Error	β
Commitment		
Gender	.052	-.081
Race/ethnicity	.066	-.039
Pre-college experiences	.042	.096
Current class level	.044	.098
Biological Sciences	.095	.051
School of Management	.085	-.073
College of Education	.095	-.052
Sciences & Engineering	.094	-.068
Other college of enrollment	.101	.021
Hard or Soft Sciences	.068	-.009
College experiences	.043	-.005
Exposures to civic themes	.049	.100
Exposure to active learning methods	.057	.140
Exposure to leadership minor course	.066	.004

(continued)

Dependent variable/ Individual variables in full regression model	Std. Error	β
Collaboration		
Gender	.046	.040
Race/ethnicity	.058	.036
Pre-college experiences	.036	.136
Current class level	.038	.093
Biological Sciences	.084	-.022
School of Management	.074	-.115
College of Education	.083	-.043
Sciences & Engineering	.082	-.086
Other college of enrollment	.088	-.073
Hard or Soft Sciences	.060	-.041
College experiences	.038	.044
Exposures to civic themes	.043	.121
Exposure to active learning methods	.050	.250***
Exposure to leadership minor course	.058	.168**

(continued)

Dependent variable/ Individual variables in full regression model	Std. Error	β
Common Purpose		
Gender	.046	.027
Race/ethnicity	.058	.061
Pre-college experiences	.036	.125*
Current class level	.038	.091
Biological Sciences	.083	-.012
School of Management	.074	-.180**
College of Education	.083	-.075
Sciences & Engineering	.081	-.068
Other college of enrollment	.088	-.025
Hard or Soft Sciences	.059	.024
College experiences	.037	.184
Exposures to civic themes	.042	.107
Exposure to active learning methods	.049	.155*
Exposure to leadership minor course	.058	.080

Dependent variable/ Individual variables in full regression model	Std. Error	β
Controversy with Civility		
Gender	.051	.127*
Race/ethnicity	.065	.012
Pre-college experiences	.041	.154*
Current class level	.043	.084
Biological Sciences	.093	.010
School of Management	.083	-.116
College of Education	.093	-.002
Sciences & Engineering	.091	-.019
Other college of enrollment	.098	-.090
Hard or Soft Sciences	.066	.084
College experiences	.042	-.086
Exposures to civic themes	.048	.248***
Exposure to active learning methods	.055	.089
Exposure to leadership minor course	.065	.109

(continued)

Dependent variable/ Individual variables in full regression model	Std. Error	β
Citizenship		
Gender	.069	-.055
Race/ethnicity	.087	.084
Pre-college experiences	.055	.215***
Current class level	.057	.091
Biological Sciences	.125	-.034
School of Management	.111	-.117*
College of Education	.125	-.023
Sciences & Engineering	.123	.013
Other college of enrollment	.132	-.010
Hard or Soft Sciences	.089	.011
College experiences	.057	.268***
Exposures to civic themes	.064	.173**
Exposure to active learning methods	.075	.078
Exposure to leadership minor course	.087	.065

(continued)

Dependent variable/ Individual variables in full regression model	Std. Error	β
Change		
Gender	.059	.171**
Race/ethnicity	.075	.098
Pre-college experiences	.047	.131*
Current class level	.049	.093
Biological Sciences	.108	-.048
School of Management	.096	-.117
College of Education	.108	-.093
Sciences & Engineering	.106	-.010
Other college of enrollment	.114	-.045
Hard or Soft Sciences	.077	.067
College experiences	.049	-.034
Exposures to civic themes	.055	.152*
Exposure to active learning methods	.064	.163*
Exposure to leadership minor course	.075	.098

*p<.05. **p<.01. ***p<.001.
Note. Coded on a five-point scale including strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4).