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Rachel Gershenson-Gates
rachgersh@yahoo.com

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THE IMPACT OF SERVICE-LEARNING ON COLLEGE STUDENTS'
CIVIC DEVELOPMENT AND SENSE OF SELF-EFFICACY

A Dissertation

Presented in Partial Fulfillment of the Degree of
Doctorate of Philosophy in Clinical Psychology

January, 2012

BY

RACHEL GERSHENSON-GATES

Department of Psychology
College of Science and Health
DePaul University
Chicago, IL

DISSERTATION COMMITTEE

Sheldon Cotler, Ph.D.

Chairperson

Catherine Pines, Ph.D.

Bernadette Sánchez, Ph.D.

Joyce Sween, Ph.D.

Rich Whitney, Ph.D.

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VITA

The author was born in Chicago, Illinois on March 13, 1980. She graduated as valedictorian from Oak Park and River Forest High School and received her Bachelor of Arts with Honors in Psychology from Brown University in 2002. She received her Master of Arts with Distinction in Clinical Psychology from DePaul University in 2008.

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CHAPTER I.

INTRODUCTION

In 1993, President Clinton signed the National and Community Service Trust Act, creating the Corporation for National and Community Service (CNCS). In addition to delivering such well-known programs as AmeriCorps, CNCS coordinates Learn and Serve America, which focuses on engaging students in service-learning. By 2008, presidential candidate Barack Obama described a plan for integrating community service into education which called on *all* students to participate in service (with a goal of 100 hours per year for college students), citing unspecified research findings that students in service-learning programs have more positive academic outcomes and “are more likely to become active, engaged citizens” (National Service Plan Fact Sheet). As President, Obama pledged to enhance students’ experience of service-learning by developing national guidelines for its implementation (The Obama-Biden Plan, 2008), and requested over one billion dollars for the CNCS budget for the fiscal year 2010 (Corporation for National and Community Service, n.d.). The unprecedented attention given to service-learning at the federal level reflects its recent growth in both K-12 and higher education institutions nationwide (National Center for Education Statistics, 1999; Campus Compact, 2008). Despite the documented enthusiasm for service-learning programs among educators, it has been noted that continued research on program outcomes is critical in justifying the investment of time, energy and financial resources required for implementation (Scales & Roehlkepartain, 2004). While such research has begun to paint a promising

picture, operational and methodological issues remain which limit the conclusions that can be drawn about whether service-learning truly lives up to expectations.

The concept of linking education and service can be traced back to some of the education field's earliest thinkers. However, while classical education theorists from Aristotle to Locke saw community service as a *goal* of education, the idea of service as an integral element of pedagogical methodology originated with John Dewey (Rocheleau, 2004; Saltmarsh, 2011). Dewey believed that education should involve students' active engagement in social problem-solving, in which real-world issues are explored through collaboration with others. This philosophy formed the basis of progressive education theory, which was prevalent in the first half of the twentieth century. During this time, new ideas about the service function of American universities, classroom instruction being combined with work in the student's chosen field, and the creation of community colleges all contributed to the connection of education and community, thus paving the way for the concept of service-learning (Zieren & Stoddard, 2004). Additionally, the economic depression of the 1930s led to the development of community service programs which employed millions of youth (Waterman, 1997). This explosion of interest in service was followed by a period of intense criticism of progressive education theory related to its potential ethical and political biases during the 1950s until the mid-1980s (Rocheleau, 2004). However, interest in combining service and education (particularly in the form of service-learning) has grown once again in recent decades. Speck and Hoppe (2004) posit that this renewed interest in Dewey's pedagogy is related to Americans' sense of

disconnection which has resulted in the idealization of service-learning as a “way to make a difference nationally by producing a generation of citizens who would restore community” (p. viii). Within the higher education setting specifically, service-learning has been supported by traditions of promoting experiential education such as internships, as well as a belief that students should graduate as adults who are driven to become well-informed, active members of society (Wutzdorff & Giles, 1997).

Despite the increased attention and research production around service-learning, the literature on this topic remains fragmented, a phenomenon perhaps related to the difficulty of pulling together the inherently interdisciplinary strands of work related to education and service (Omoto, 2005). Duffy and Bringle (1998) note that service-learning fits particularly well within psychology given the field’s need to coordinate basic and applied traditions and find effective, meaningful ways to educate significant numbers of undergraduate students. Thus, high-quality service-learning programs provide “a means for psychologists to be directly involved with changes in society and create an opportunity for students to see the illustration and application of psychological concepts” (p. 3). Although the field offers a rich environment for service-learning experiences, psychological research and theory have been slow to catch up to the rapidly expanding service-learning programming in university settings.

Definitions

While the practice and study of service-learning has increased exponentially, discussions of the process and its outcomes are compromised by

the lack of consensus in defining what the process entails (Billig, 2003). Indeed, the proliferation of terms such as *experiential learning*, *community service*, *practicum*, *internship*, and *community-based service-learning* make it difficult to distinguish service-learning from students' other hands-on experiences (Furco, 2003). The National Service-Learning Clearinghouse (a program associated with Learn and Serve America) defines service-learning as “a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities” (n.d.). As described below, many of these elements are included in scholarly definitions of service-learning, but given the great variety in programs, there is no consistent definition within or across disciplines.

At the simplest level, service-learning is generally understood to incorporate a course-based component. As such, it is “an educational experience that affords students the opportunity to apply experiences gained in helping others to their understanding of material learned in the classroom” (Chapman & Ferrari, 1999, p. 1). This broad definition conceptualizes service-learning as a process which links academic and hands-on service experiences (Teranishi, 2007) in a bi-directional relationship. Thus, it is distinguished from volunteer or community service work that is independent and unrelated to students' coursework.

In addition to the educational enrichment experienced by students, the individuals or communities with whom they work are seen as mutual beneficiaries of service-learning. Some definitions clearly articulate this relationship by specifying that service-learning “addresses community needs or assists

individuals, families, and communities in need” (Hunter & Brisbin, 2000). The literature is less clear about how these specific needs are identified or the format of the relationship between students and those they serve. Burnett, Long, and Horne (2005) state that service-learning requires a focus on positive, collaborative relationships. Although this emphasis on equal, non-hierarchical relationships is not included in most definitions of service-learning, it raises interesting questions about the role of the student within community agencies and programs.

Most authors agree that service-learning experiences must include a link between academic and service elements in the form of opportunities for reflection (Wang & Rodgers, 2006), but statements about the content and goals of reflective activities vary greatly. Kendall (1990) argues that reflection should take place in combination with a critical analysis of issues related to social justice and social policy. Bringle and Hatcher (1999) state that reflection should prompt students to “gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility,” while Hunter and Brisbin (2000) write that reflection should focus on “the normative dimensions of civic life.” It has also been argued that reflection exercises can prompt students to go through a process of identifying and challenging their own negative attitudes or stereotypes which may initially be triggered by encounters with others from different backgrounds (Strain, 2005). Whatever the goal, it is difficult to ascertain the format (i.e. journaling, class discussions), amount, or quality necessary to constitute effective reflection experiences.

Over and above the goals of reflective activities, some definitions of service-learning specify goals for students' personal growth related to the overall experience. Burnett, Long, and Horne (2005) suggest that service-learning promotes "a commitment to personal, social, civic, and professional responsibility." This sentiment is echoed in other definitions of service-learning which state that the practice should advance students' civic learning (Feen-Calligan, 2005) or active citizenship (Billig, 2003), nebulous concepts which will be examined in more detail later. However, others consider these qualities to be potential outcomes rather than critical elements of service-learning. For example, Mitchell (2008) argues for a distinction between *traditional* service-learning, which focuses on the importance of general student development, and *critical* service-learning, which encourages critical analysis of community issues and enables students to see themselves as agents of social change.

Despite these characteristics that are common to many definitions of service-learning, use of the term is broad enough to yield significant difficulties in drawing conclusions about the impact of the experience on students (Eyler, 2002). In his discussion of definitional issues in the service-learning literature, Furco (2003) notes that some reviews which purport to summarize outcomes of service-learning include studies of students' volunteer community service not linked to coursework. In an attempt to avoid this problem, only studies which specify that the service was tied to coursework are included in the present review. While the majority of these studies include reference to reflection activities, some do not specify whether this was a part of the course, and therefore reflection was not

used as inclusion criteria for this review. Additionally, many studies unfortunately do not include a description of the goals of the academic course component, so it is difficult to discern whether goals of mutual collaboration or civic responsibility were specified. Therefore, as with any review of the current state of service-learning literature, conclusions should be made with caution as the consistency of operational definitions across studies is questionable.

Theoretical Models

In addition to the difficulties imposed by the lack of consensus in definition, the fact that most of the studies on service-learning to date have been atheoretical provides further challenges in describing a coherent base of literature on the topic (Billig, 2003). Of the models that have been proposed, most are limited to the perspective of a particular discipline, despite the inherently interdisciplinary nature of service-learning (Furco & Billig, 2002). Many such models have been described in the education literature, providing a well-established base of information which can be expanded from the perspective of psychological theory. For example, one of the most frequently cited theories related to service-learning is experiential learning theory (ELT). Based in Dewey's work, ELT describes how learners grasp a concept through concrete experience and abstract conceptualization, then make the concept personally meaningful through reflection and active experimentation (Kolb, 1984), a process which is thought to be constantly repeated in a service-learning setting. Brandenberger (1998) posits that a developmental psychology perspective can ground service-learning theory in the experiential framework described by

Dewey. As such, Piaget's concepts of interaction and construction can inform service-learning practice in that "through interacting with their environment, developing individuals construct meaningful understandings of self and world" (p. 70). This process occurs using previously developed cognitive structures, which at times must be adapted (Piaget's term is *accommodation*) to incorporate new information.

Although Piaget's emphasis on interactive learning is a useful starting point in understanding the process of service-learning, his focus on childhood does not allow for specific consideration of developmental processes unique to the young adult. Interaction with the environment is also central to psychosocial development as described by Erikson. The typical college-age student is at a developmental stage in which identity formation is central, and aspects of identity which may be particularly relevant to the service-learning experience include self-efficacy, social relatedness, and moral-political awareness (Brandenberger, 1998). Such characteristics are related to the development of altruism as students begin to bond and empathize with those in their service environment (Kitzrow, 1998). While students have a variety of reasons for making the initial decision to serve, an ideal service-learning experience, in which the interest of both self and others are served, will theoretically promote the internalization of prosocial attitudes, values, and behaviors (Clary, Snyder, & Stukas, 1998). The process of connecting helping others with one's sense of self-worth is reflected in Marchel's (2003) qualitative research with students in semester-long service-learning courses, in

which altruistic behavior in the service-learning context was linked to increased feelings of self-esteem and self efficacy.

While the period of emerging adulthood may present a prime opportunity for the development of the positive qualities associated with service-learning, it must be noted that the individual experience can vary based on a number of factors. Sheckley and Keeton (1997) argue that the description of a uniform learning experience suggested by experiential learning theory must be expanded to account for differences in outcomes due to factors such as the nature of students' expectations (and whether they are confirmed or disconfirmed by the service experience) and their level of engagement in reflection. They propose that changes in attitudes and beliefs are related to the depth of processing of concepts, stating that "by virtue of their continued experiential involvement in the service-learning settings, as students 'learn' they concurrently develop more complex, more highly integrated, and more refined models of meaning that they use to make sense of their experiences in the world (p. 48). This model suggests that the more experiences a student has in their service-learning setting, the more potential there is for complex thinking that allows students to deconstruct social issues such as discrimination.

Moving beyond a cognitive framework, developmental and social psychology theory can be integrated to examine how college students' attributional tendencies change as they become involved in caring for others and commit themselves to a particular value path (Brandenberger, 1998). Bringle and Velo (1998) highlight the relevance of attribution theory to service-learning.

They explain that attributions, or “causal inferences people make in an attempt to explain the behaviors of themselves, the behavior of others, and the events that occur in the world” (p. 51), are organized along four key dimensions of an event: its controllability, the stability of its cause, the locus of causality (internal or external to the person involved), and its globality (the specificity of the attribution). These elements have important ramifications for students involved in service-learning, as they may initially be biased toward making internal attributions about underprivileged populations due to the *fundamental attribution error*, a social phenomenon in which humans tend to underemphasize the importance of environmental influences on behavior. However, this perception may shift when students learn about and reflect upon the external causes of problems such as poverty, and the lack of control many victims have over their situations.

Some theorists have emphasized that attitudinal shifts do not occur overnight, but rather happen gradually as students move through during their service experience. Dreuth and Dreuth-Frewell’s (2002) qualitative research with undergraduate social work students working in semester-long internship placements indicated students progressed through the following stages of development in their commitment to community service: (1) Rapport building (focus on basic communication and power), (2) Agency integration (focus on fantasy vs. reality and understanding the system), (3) Community awareness (focus on interacting with the community and understanding its needs), and (4) Integration with clients and self. The authors conclude that although students

began the experience with varying understanding of community-based work, they all developed a sense of social responsibility which was reflected in a commitment to employment in similar agencies following graduation. Kiely (2005) describes a similar process in which students come to personalize, process, and connect with new contexts, but not before they experience a sense of dissonance associated with “crossing borders” into the unfamiliar. While descriptions of the transformational process of service-learning provide a general framework for understanding patterns of change, little consideration is typically given to the duration or quality of experience which is necessary to promote students’ progress.

In addition to advancing our understanding of students’ attitudes towards others, psychological theory can be useful in explaining changes in students’ feelings about themselves following participation in service-learning. It is often noted that students tend to feel more competent and confident in their abilities following service experiences. Aspects of Bandura’s *social learning theory* can provide insight into how this change in feelings of self-efficacy occurs. Bandura (1997) posits that there are multiple experiences that influence self-efficacy, including “mastery experiences” (opportunities to successfully perform tasks of authentic personal and practical value), “vicarious experiences” (observing another person successfully model a task), “social persuasion” (receiving feedback), and physical/emotional states (managing stress in difficult situations). It has been demonstrated that community-based service-learning can provide opportunities for mastery (Cone, 2009), and it seems likely that common service-

learning activities such as observation, reflection, and supervision would be relevant for Bandura's other efficacy-related experiences as well. Thus, bringing together complementary strands of psychological theory can provide the basis for further exploration of changes in students' feelings about themselves and others in various service-learning contexts.

Student Outcomes

Despite the operational and theoretical challenges for service-learning research, several large-scale studies have attempted the task of documenting student outcomes following their participation in service-learning. In one of the most frequently cited research programs, Eyler and Giles (1999) used a mixed methods approach combining survey data from 1,131 students and intensive qualitative interviews with 66 students before and after a semester of service-learning. They also included surveys of 404 students who did not participate in service-learning. The national survey sample included twenty colleges and universities located in a wide range of geographical locations, with 68% female and 17% ethnic minority students (no further ethnicity data was provided). Results demonstrated improvements in a wide range of outcomes following service-learning participation, including critical thinking, personal and interpersonal development (i.e., decreased stereotyping, greater self-efficacy), and citizenship. However, the broad inclusion criteria for course structure (class size ranging from 1 to 310; service hours per week ranging from 1 to more than 6) and type (arts and sciences classes with a service-learning component, special service-learning seminars, professional education and social work classes which included

service-learning, and “service internships”) reflects the definitional challenges in describing standard *service-learning* experiences. The authors state that the “extreme diversity” (p. 213) of the sample may have affected reliability for some of the study measures, which combined items from existing measures with questions created by the authors, and ranged in internal consistency from .46 to .80. Thus, while this research provides an important overview of the benefits of service-learning across a variety of experiences nationwide, issues with sampling and measurement suggest reasons for caution in interpretation of the results.

While Eyler and Giles limited their assessment period to a semester, Astin, Vogelgesang, Ikeda, and Yee (2000) conducted a longitudinal study which surveyed 22,236 undergraduates from a national sample of colleges and universities (further demographic data was not reported) during their freshman year and again four years later. Results indicated that students who reported that they had participated in one or more service-learning courses demonstrated significant improvements on 11 outcomes (including measures of academic performance, commitment to activism and promoting racial understanding, self-efficacy, leadership, career plans, and plans for future service) when compared to those who participated in volunteer community service or did not participate in any form of service. Information gathered from structured interviews and focus groups with a smaller sample of faculty and students on three different campuses supported these results. However, quantitative assessment was mostly limited to single-item survey responses, with some multiple-item measures developed by the

authors. Again, the broad patterns suggested by this research provide a basis for studies which can include more detailed conceptualizations of outcomes.

The following discussion will consider two such outcomes which are repeatedly identified by both large- and small-scale studies as being positively affected by service-learning: students' civic development and sense of self-efficacy. In addition to the *theoretical* basis for change in these outcomes during a service-learning experience, the *practical* relevance of each has been emphasized in higher education as important in producing competent, engaged citizens. Although these constructs have been the subject of considerable attention in the literature, the need for further research forms the basis for the current study.

Civic Development

As discussed above, a focus on increasing students' civic development is often included in the very definition of service-learning, and there has recently been intensified interest in promoting engagement in community issues as a primary goal of the service experience (O'Connor, 2006). Gehrke (2008) notes, "significant declines in indicators of civic behavior identify Americans' decreased connectedness to each other, their communities, and participation in the process of government and solving problems together" (p. 52). As the political rhetoric has begun to focus on reversing this lack of involvement, service-learning has been identified as one of the catalysts for promoting active citizenship in young people. However, as with the term *service-learning*, variations in the definition of *civic engagement* have presented challenges for research. Definitions have

ranged from an awareness of structural inequalities and a sense of connection to community (Teranishi, 2007), to an interest in learning about politics and an understanding of the impact of social institutions on the individual (Simons & Cleary, 2005), to being politically active (Prentice, 2007). Rather than limit the construct to a single behavior or attitude, a broader definition can enhance our understanding of the student's overall civic development. Based on their research, Eyler and Giles (1999) propose a model of citizenship which includes values (i.e. importance of social justice), knowledge (i.e. understanding social problems), skills (i.e. leadership, communication), commitment, and efficacy. The current study evaluated aspects of civic development in each of these five areas, to be discussed in detail below.

Civic Skills

Students' interpersonal skills are at the heart of their ability to engage with community members (Eyler & Giles, 1999). Further, research indicates that young adults feel that communication and interpersonal abilities are the most important life skills that they need to learn, especially given their importance when seeking employment (Powney, Lowden, & Hall, 2000; Glenn, 2009). Qualitative studies have described themes of improved communication skills for students in service-learning in a range of areas such as patience, tact, diplomacy, empathic listening, and public speaking (Amtmann, Evans, & Powers, 2002; Leung, Liu, Wang, & Chen, 2007; Meaney, Bohler, Kopf, Hernandez, & Scott, 2008). Quantitative research supports the idea that students feel their communication skills improve during the course of their service-learning

experience, but results are questionable as they are often based on a single item from a survey given at the end of a course (e.g., van Assendelft, 2008; Olm-Shipman, Reed, & Jernstedt, 2003). As students' overall communication skills improve, they may increase their interpersonal problem-solving ability (Crossman & Kite, 2007; Aberle-Grasse, 2000); in this vein, some service-learning courses focus specifically on honing students' conflict resolution skills (e.g., Wells, 2003; Raskoff, 1997).

Communication and problem-solving abilities are often discussed in conjunction with a third civic skill: leadership. Leadership qualities which have been identified as related to service-learning experiences include the ability to lead a group and feeling responsible for others (Leung, Liu, Wang, & Chen, 2007), but measurement of this construct has been limited. For example, in a post-hoc analysis of reflection essays written by masters-level teachers enrolled in a course requiring 15-20 hours of service-learning, Cousea and Russo (2006) found a consistent theme in the development of leadership skills in areas of advocacy, administration, and educating other teachers, but findings were based on analysis of only five teachers' essays and thus are limited in generalizability. In another study of graduate students in education, service-learning participants demonstrated increased leadership skills on a "leadership checklist" administered before and after the project, but psychometric data for this measure was not reported (Thompson, 2009). Some research suggests that students' abstract understanding of leadership should be distinguished from their endorsement of their own leadership qualities. Newman, Bruyere, and Beh (2007) found that

following service-learning, students felt their understanding and vision of leadership improved, but few reported change in leadership traits. The authors propose that the 15-week period of service may have initiated the process of change, but was too brief a time to promote actual changes in leadership skills.

Civic Values

Students' perspective on issues related to social justice is also an element that has yielded attitudinal change. Changes over the course of service-learning participation may be indicated in students' heightened awareness of structural inequalities and ability to critique complex social issues such as the institutionalization of racism (Aberle-Grasse, 2000; Teranishi, 2007). As students learn about the social structures involved in the community, they "critically examine their own assumptions and biases. When they do, they come to a broader understanding of diversity and social justice" (Baldwin, Buchanan, & Rudisill, 2007, p. 326). In one of the few studies of yearlong service-learning programs described in the literature (20 hours per week for 2 semesters), Aberle-Grasse (2000) conducted a retrospective analysis of self-evaluation essays, 60 surveys from program alumni, and 16 in-depth interviews. Essays described reduced racial and class prejudice resulting from a new appreciation for diversity and an increased desire to listen to the perspectives of those from different backgrounds. This result was also reflected in survey responses, but this was limited to one question asking whether they experienced "an increased understanding of racial or cross-cultural issues."

Many other qualitative studies support the idea that direct contact with people of different backgrounds decreases stereotyping and increases appreciation for diverse perspectives (Jones & Hill, 2001; Meaney, Bohler, Kopf, Hernandez, & Scott, 2008; Wehling, 2008, Blieszner & Artale, 2001; Amtmann, 2004).

Much of the focus in this area has centered on advanced students in pre-professional courses. In a review of research on service-learning in multicultural teacher education, Wade (2000) concludes:

“Service-learning experiences in diverse communities can lead preservice teachers to increase their awareness of diversity, to learn to accept or affirm children and families of color, and to begin to question their pre-existing attitudes and beliefs. While preservice teachers may experience difficult feelings associated with their community encounters and struggle in regard to questioning the root causes of inequity, most judge their experience overall as worthwhile and personally satisfying” (p. 26).

While Wade describes positive changes in students’ diversity attitudes, the potential for students to respond differently to the “difficult feelings” they experience must be acknowledged. Such varying outcomes are reflected in Baldwin, Buchanan, and Rudisill’s (2007) research with teacher candidates who were primarily white, middle-class females participating in service in low-income communities with predominantly minority children. The authors found that while many students came to challenge the preconceived negative assumptions they had about the children they worked with (many said they would like to work with diverse groups in the future), some appeared to have their stereotypes reinforced. In addition to acknowledging that not all students will react the same way to

working with diverse populations, it must be noted that some students' placements may not provide multicultural exposure in the first place.

Civic Knowledge

The ability to critique societal problems related to social justice and diversity at a deeper level may be connected to an overall improvement in critical thinking skills which arises from dealing with the challenges presented by service-learning experiences. Enhanced critical thinking has been demonstrated both in students' self-reported beliefs about their abilities (Joseph, Stone, Grantham, Haramncioglu, & Ibrahim, 2007) as well as analysis of their reflective writing (Li & Lal, 2005) or performance on problem-solving tasks (Eyler & Giles, 1999). The type of course content, discussions, and activities are all relevant to furthering students' capacity to thoughtfully analyze problems (Cress, 2004). As this capacity expands, students become more able to process new knowledge about community issues.

One area of knowledge central to community work is the awareness of political structures, and service-learning courses provide an ideal environment for honing such understanding (Gorham, 2005). The reflective process has been identified as a critical tool in this process as students "develop their knowledge of 'how things work,' and simultaneously refine their sense of civic agency," (Blount, 2006, p. 271), resulting in increased interest in the political process. Perhaps not surprisingly, the outcome of political engagement has frequently been a focus of service-learning in political science courses. Following a semester-long State and Local Politics course in which students participated in 15-20 hours of

service-learning, attended three political meetings, and interviewed 2-3 elected officials, students' essays indicated that their experience "changed perspectives, raised consciousness about the complexity of local policy issues, and encouraged students to become more active in local politics" (van Assendelft, 2008, p. 94). These themes were supported by students' responses to quantitative items regarding political interest and awareness, but these questions were asked at posttest only and were not part of a validated scale.

Civic Commitment

Having skills and values related to civic engagement does not ensure a sense of responsibility and commitment to future community work. Gallini and Moely (2003) found that students who participated in various semester-long intensive community service experiences across disciplines scored higher on a community engagement scale, but the use of questionnaires at post-test only does not allow for conclusions about changes over time as a result of service-learning participation. Similarly, a case study of university students in one service-learning course in Hong Kong noted a theme of desire to continue with service beyond their original period of commitment (Ngai, 2006). However, the lack of a pretest or control group again limits the conclusions which can be drawn from these findings.

Other research has found weak or mixed support for the growth of civic commitment as a result of service-learning participation. Gray, Ondaatje, Fricker, and Geschwind's (2000) survey of 1,322 college students from 28 institutions compared students in service-learning classes to those in similar classes without a

service component. Results showed that students in service-learning classes reported a greater impact of their coursework on increasing their civic participation, defined as “current and expected involvement in addressing social problems, participation in campus or public politics, and providing community or volunteer services” (p. 34), but the effect was modest, with service-learning participation accounting for less than seven percent of the variance in civic participation. As the survey was only given at the end of the course, however, the comparison of outcomes to pre-service levels is not possible. Several factors, including students’ perceptions of the amount of personal development experienced through service and the value of their service project to the community, have been identified as contributing to different levels of commitment to future volunteerism following service-learning (Tomkovick, Lester, Flunker, & Wells, 2008). These findings reiterate the importance of acknowledging that not all service experiences result in the same outcomes for students.

Measurement of Civic Outcomes

As evidenced by the discussion above, the assessment of civic development has proven challenging given the wide-ranging definitions of the construct. Jones and Gasiorski (2009) assert that “the research on the relationships between service-learning, community involvement and civic participation among adults is disparate and diffuse, thus making a holistic picture difficult to ascertain” (p. 636). To date, the majority of quantitative research examining civic values, skills, or behaviors has used unique survey measures (at times consisting of a

single item) which often center on questions that are relevant to particular programs. While the use of original surveys enables the assessment of specific variables of interest to the authors, they often lack a description of norms or a record of psychometric properties (Bringle, Phillips, & Hudson, 2004). Research which does include established scales often assesses only one aspect of civic development, such as attitudes towards community service (i.e., Shiarella, McCarthy, & Tucker, 2000) or beliefs about social inequalities (i.e., Pratto, Sidanius, Stallworth, & Malle, 1994).

In response to these concerns, Moely, Mercer, Ilustre, Miron, and McFarland (2002) developed the Civic Attitudes and Skills Questionnaire (CASQ), which includes items which can be generalized to a variety of service-learning experiences. The CASQ breaks the broad understanding of civic development down into six subscales relevant to the elements of the construct discussed previously: civic action, interpersonal and problem-solving skills, political awareness, leadership skills, social justice attitudes, and diversity attitudes. An initial study of the measure found students in service-learning courses across disciplines showed increased scores on the CASQ on all subscales except Diversity Attitudes after a semester of participation (Moely et al., 2002). The authors posit that this result indicates that diversity attitudes may be one of the aspects of civic development that is most robust to change and/or difficult to tap.

Schamber & Mahoney (2008) used several of the CASQ subscales in comparing students who voluntarily enrolled in a service-learning section of a

general education seminar versus those who did not. Students in both sections participated in readings, discussions, and group work related to civic engagement and social justice issues, while those in the community-based section provided twelve to fifteen hours of service in their choice of a variety of local agencies. Results demonstrated statistically significant increases in political awareness and social justice attitudes for the service-learning learning students compared to no change for those who did not participate. However, service-learning students also showed *declines* in their plans for civic action, a finding echoed in another study using the CASQ which found decreases in political awareness, social justice attitudes, and problem-solving skills in service-learners working at two different school placements (Simons & Cleary, 2005). The authors note reasons why these unexpected findings may be idiosyncratic to particular student or program characteristics, suggesting the need for further research comparing changes in CASQ scores over time for different groups of students.

Self-Efficacy

The idea of “personal growth” as a result of service-learning is perhaps the most anecdotally cited outcome, yet it can be the most difficult to quantify. Qualitative analysis of students’ reflection exercises consistently yields themes such as “personal development” (Litke, 2002), “identity development” (Teranishi, 2007), and “individual growth” (Ngai, 2006). Researchers have attempted to operationalize these themes through the use of various self-report measures, and positive results have been found for such constructs as emotional empathy (Lundy, 2007) and self-esteem (Osborne, Hammerich, and Hensley, 1998;

Osborne, Weadwick, and Penticuff, 1998), but much of the literature remains vague. Brody and Wright (2004) explain that changes in students' feelings about themselves can be understood from the perspective of Aron and colleagues' (1998) model of self-expansion. This model posits that feelings of efficacy increase through the development of relationships with those different than ourselves, a situation frequently encountered by students in service-learning in which they must build connections with those that at first seem "other" (Brody & Wright, 2004). These encounters, in addition to other experiences which provide opportunities for developing new capabilities, can result in students' increased feelings of competence and confidence over the course of service-learning participation.

Bandura (1977) defines self-efficacy as "judgments about how well one can organize and execute courses of action required to deal with prospective situations that contain ambiguous, unpredictable, and often stressful elements" (p. 201), and contends that our sense of personal efficacy is the most influential characteristic in our everyday lives. Qualitative studies have provided descriptive information which suggests that students feel their ability to take action is enhanced by the experience of service-learning; for example, in increased independence in task completion and ability to adapt to new situations (Aberle-Grasse, 2000). Quantitative research has supported this claim, but assessment varies widely from single-item measures (Astin et al., 2000; Rowe & Chapman, 1999) to more comprehensive scales (Eyler & Giles, 1999). Further, some studies focus on feelings of efficacy regarding highly specific skills. For example,

Tucker and McCarthy (2001) assessed business students' feelings of self-efficacy in presenting information about various business concepts to others in a service-learning course which specifically incorporated Bandura's emphasis on mastery experiences and modeling compared to those who took courses without a service component. Results indicated that only students with low self-efficacy at pretest demonstrated increases in their feelings of competence in giving presentations during their service-learning experience. These findings supported their hypothesis that students who already had high self-efficacy would demonstrate a ceiling effect. An additional factor which may impact students' feelings of efficacy is feelings of frustration about not being able to contribute more time or make an impact more quickly (Wade, 1995). Therefore, more research is needed which examines the types of self-efficacy which may change during service-learning, as well as factors which could impact that change.

One type of self-efficacy relevant to all service experiences is students' feelings about their ability to make an impact through community work. It has been suggested that even when students believe that the public interest should be served by making changes that reflect social justice, they may not feel confident in enabling these changes themselves (Leung, Liu, Wang, & Chen, 2006).

However, research indicates that students' participation in service is predictive of their belief that they can make contributions that will effect positive change in community settings (Terkla, O'Leary, Wilson, & Diaz, 2007; Aberle-Grasse, 2000; Wade, 1995; Bernacki & Jaeger, 2008). Further, one study found that settings which have well-designed service placements which genuinely meet

community needs are more likely to promote feelings of competence (Swick & Rowls, 2000), setting the stage for additional research investigating the student and site characteristics which contribute to students' positive feelings of community self-efficacy.

Measurement of Self-Efficacy

As the assessment of feelings of efficacy is often limited to specific skill areas, measures are frequently not generalizable to a variety of service experiences. For example, using the Self-Efficacy Beliefs about Equitable Science Teaching and Learning (SEBEST; Ritter, Boone, and Rubba, 2001), Cone (2009) found that preservice teachers' feelings of competence about teaching diverse student groups increased following a service experience with a population of at-risk students. However, the utility of the measure is limited to students studying to become science teachers. Similarly, Weber, Weber, Sleeper, & Schneider (2004) developed the Self-Efficacy Toward Service Scale (SETS), a 6-item scale with strong reliability and validity, but the measure was normed on business students and the authors suggest that it be primarily used with similar samples.

A measure which is more appropriate for diverse service experiences, the Community Service Self-Efficacy Scale (CSSSES), was developed by Reeb and colleagues (1998). The CSSSES assesses confidence in one's ability to make a significant contribution to the community by participating in service. The scale was able to distinguish service learners from non service-learners at pretest and posttest, but the authors did not find a significant increase in scores for service-

learning students over a semester and hypothesized that students who seek out service experiences enter with a high degree of community self-efficacy, effectively producing a ceiling effect. In a later study of conduct-disordered adolescents, CSSES scores increased over a 6-month period for those who participated in a community-based diversion program which included a work therapy element described as “conceptually similar to service-learning” (Reeb, 2006). Despite mixed preliminary findings, the CSSES has been identified as having potential utility as an outcome variable in service-learning research (Bringle, Phillips, and Hudson, 2004), and further research using the scale with different populations is necessary before drawing conclusions about changes over time.

In addition to measuring community service self-efficacy, the use of a more general scale allows for assessment of whether service-learning experiences contribute to students’ overall confidence in their abilities. Sherer and colleagues’ (1982) Self-Efficacy Scale (SES) is broken into subscales which measures the broader construct of general self-efficacy, as well as social self-efficacy. Bringle, Phillips, and Hudson (2004) identify the SES as a useful tool in service-learning research while cautioning that it correlates significantly with social desirability. The SES has been used in research across a wide range of populations, but has thus far not been widely utilized in service-learning studies.

Factors Affecting Student Outcomes

As discussed above, research has identified a plethora of skills, attitudes, beliefs, and behaviors which have the potential for positive change related to

students' participation in service-learning. While it is tempting to assume that all service-learning experiences affect students in an equally positive way, it is important to evaluate whether certain program qualities (such as intensity of service required) and student characteristics (such as expectations, satisfaction and engagement in reflection) can affect the degree to which students experience positive outcomes. Among the service-learning program components which may affect student outcomes is the actual amount of exposure in terms of number of service hours and/or frequency of direct contact with service recipients (Mabry, 1998). Many service-learning projects involve minimal service hours over the course of an academic quarter/semester or less, and it has been suggested that "although these brief projects can have meaningful outcomes for students, an extended service-learning experience can allow students to have more transformative and integrative learning" (Einfeld & Collins, 2008). In an investigation of a very brief service commitment, Reed, Jernstedt, Hawley, Reber, and DuBois (2005) assigned students who chose an optional service-learning experience to either a control condition or to the experimental group, in which they attended one hospice visit and five additional class sessions. Students who experienced this service-learning course component had no change in their sense of social responsibility, a result which indicates that the length of time students spend in service-learning activities may be relevant for significant change.

While the claim that longer-term involvement results in more significant and durable changes (Aberle-Grasse, 2000; Piliavin, 2005) makes theoretical sense, little research exists which actually compare the experiences of students

with different levels of service participation to one another or to students who are not involved in service-learning. In a study comparing high and low-intensity service-learning experiences using retrospective surveys of alumni of a Catholic liberal arts college, Fenzel and Peyrot (2005) found that participation in service-learning courses requiring more service hours (greater than 10) was positively related to current employment in a service-related job, membership in a community organization, level of participation in service, and attitudes towards the importance of political involvement and personal responsibility for improving the well-being of people and communities in need. Other research suggests that the more time students put in at their site, the more they viewed the experience as substantive and beneficial to themselves and the community (Swick & Rowls, 2000). One study which distinguished different ways of assessing the “dose” of service to which students were exposed over the course of a semester, Mabry (1998) found that the *number of hours* (ranging from less than 14 to over 35) was not related to post-test personal social values and civic attitudes, but *amount of direct service* had a significant positive relationship with these outcomes. These findings suggest that the way in which the level of service commitment is defined may be important in assessing effects.

While far less well-studied than the amount of service performed, factors including students’ reasons for engaging in service, expectations for the course, and satisfaction with their experience service have all been identified as having the potential to influence outcomes. One study comparing students who participated in required versus voluntary service-learning found that only students

who engaged voluntarily demonstrated increases over the course of a semester in their reports of paying attention to politics, appreciation of racial diversity, and community responsibility for addressing social problems (Hunter & Brisbin, 2000). Beyond students' motivation for participation, their expectations for the course might influence their perceived experience. For example, using both survey data and journal analysis of 202 students who selected a service-learning option in 17 different courses, McKenna and Rizzo (1999) found that students who had higher expectations for learning during their service experience later reported that greater learning had actually occurred. Further, students who perceived that they had made a greater contribution to the community felt more committed to pursuing community work in the future, and these findings did not differ by type of service placement. In addition to specific feelings about the level of personal contribution, students' overall sense of satisfaction with their experience has been found to have a strong positive relationship to outcomes such as commitment to social issues and respect for diversity (Sek-Yum & Ngan-Pun, 2005).

Finally, engagement in reflection has also been described as a critical transformative element in the service-learning experience (Sek-Yum & Ngan-Pun, 2005). Instructors' encouragement of reflection has been found to contribute to students' social justice learning (Mayhew & Fernandez, 2007) and stronger future beliefs in the importance of political and social action (Fenzel & Peyrot, 2005). However, few studies have examined the relationship between students'

beliefs about the relevance of reflection to their learning and subsequent outcomes.

Agency Perspectives

A final important but neglected outcome of service-learning is the experience of the community being served. It has been suggested that focusing exclusively on student outcomes neglects the reciprocal nature of the service-learning paradigm (Lowery et al., 2006). While this has been identified as an important area of future service-learning research, very few studies have explored community outcomes (Porter, Summers, Toton, & Aisenstein, 2008). In interviews with staff from 64 community organizations, Tryon and colleagues (2008) found that approximately one-third of the organizations described difficulties with short-term service-learning placements, including the time investment of staff, low commitment of students, poor fit with direct service, and supervision and training capacity. Another qualitative study of 99 community partners in eight California communities found that agencies working with students who had an hours requirement of 20 hours or less “expressed the most concern about the adequacy of the service-learning experience, in terms of the quality of the education experience for students, and the short- and long-term benefits for their organization” (Sandy & Holland, 2006, p. 39). However, other research has found that hours of student service is not significantly related to the agency’s perceived benefit of having them there (Miron & Moely, 2006; Basinger & Bartholomew, 2006). Within the same higher education institution as the current study, a case study of 12 community-based organizations (CBOs) which

have partnered with the university service-learning programs found that CBO representatives generally felt that the benefits of the students' presence outweighed the drawbacks (Worrall, 2007). Thus, although community agencies acknowledge both benefits and challenges to working with service-learning students (Ward & Kelly, 1999), the relationship between students' site performance and their personal outcomes remains unknown. The current study incorporated several scales of community agency perceptions developed by Miron and Moely (2006) to examine whether students who are perceived more positively by their site supervisor have more positive self-efficacy and civic development outcomes.

Rationale

Building on decades of pedagogical theory influenced by John Dewey's emphasis on the benefits of hands-on experiences in enhancing academic content, the practice of combining education with service continues to increase. The number of high schools and higher education institutions incorporating service into coursework has expanded based on the belief that these experiences will make students better citizens while providing needed work in the community. Despite a growing literature base focused on the benefits of service-learning for student development, large gaps remain in our understanding of the process of service-learning which make it difficult to know whether the outcomes live up to the expectations.

One of the primary concerns with the rapid expansion of service-learning research has been the number of studies which are either atheoretical, or lack a description of the basis for assumptions about outcomes (Billig, 2003). In an effort to avoid the problems associated with prior research, the dependent variables for the current study were selected with consideration of the aspects of student development which are most likely to be affected by service-learning participation. Developmental and social psychology theory suggests that hands-on interaction with people in new settings enhances learning and provides an opportunity for attitudinal shifts about previously unfamiliar people or contexts. As many college students are in a period of exploration associated with identity formation, they may in particular, benefit from the opportunities provided by service-learning to confront civic issues and consider their commitment to serving

the community. Further, the emphasis in service-learning programs on reflection, supervision, observation, and applied skills can offer possibilities for modeling, feedback, and mastery experiences that social learning theory suggests will result in feelings of confidence and competence. Based on these diverse but complementary theoretical perspectives, the present study examined students' civic development and feelings of self-efficacy as they progress through the service-learning experience.

Qualitative studies have provided a solid base of information describing in rich detail the feelings of "personal growth" and "responsible citizenship" which students report following their service experiences. Further assessment of these outcomes using quantitative methods has yielded positive results, with large-scale studies in a variety of higher education settings (e.g., Eyler & Giles, 1999; Astin et al., 2000) demonstrating improvements for service-learning students in a range of outcomes related to civic development and self-efficacy. More in-depth studies, often of a single course and/or type of service placement, have also yielded promising results which suggest that participation in service-learning is related to increased communication and leadership skills, knowledge and critical thinking about social justice issues, appreciation of diversity, feelings of responsibility and commitment to community work, and belief in one's abilities. However, there is no consensus in the literature about definitions of these outcomes. An additional definitional issue which makes it difficult to draw overall conclusions is the characterization of *service-learning* itself, with the service experiences included in studies ranging from an optional course project to

aide positions for preservice teachers. Further, many studies involve a single questionnaire administration or the use of single-item or non-validated measures and/or lack a control group of students who are not participating in service-learning. Given the methodological problems, directional changes over time are often not documented and factors both within and outside of the service-learning experience which may contribute to students' retrospective reports cannot be ruled out.

The current study sought to address the methodological issues which have been identified in service-learning research in a number of ways. In contrast to studies which assess students once or twice during a semester, a longitudinal design aimed to evaluate students at three time points over the entire academic year using validated measures. By including a group of courses which each place students at a variety of service sites, the study allowed for comparison of factors which differentiate student experiences. One such factor which has been touched on but not fully explored by the service-learning literature is the length of service involvement necessary for meaningful change. The present study compared students in intensive, year-long service-learning to those in short-term courses as well as a comparable group of students not participating in service-learning.

Given the national focus on the importance of integrating service into education, it is important that research continue to expand our understanding of the process and outcomes of service-learning. This study builds on existing literature by providing a focused assessment of a range of student experiences and their relationship to students' self-efficacy and civic development, with the aim of

filling the gap between single-course case studies and large-scale national research.

Statement of Hypotheses

- I. At Times 1, 2, and 3, students' civic development (as measured by each of six CASQ subscales) and self-efficacy (as measured by SES and CSSES) will differ such that:
 - a. Students in intensive service-learning courses will have significantly higher civic action, interpersonal/problem-solving skills, political awareness, leadership skills, social justice attitudes, and diversity attitudes scores than those in short-term service-learning courses, who will have significantly higher scores than students not in service-learning.
 - b. Students in intensive service-learning courses will have significantly higher general, social and community service self-efficacy scores than those in short-term service-learning courses, who will have significantly higher scores than students not in service-learning.
- II. From Time I to Time 2, service-learning students' civic development (as measured by each of six CASQ subscales) and self-efficacy (as measured by SES and CSSES) will increase such that:
 - a. Students in both intensive and short-term service-learning courses will show significant increases in civic action, interpersonal/problem-solving skills, political awareness, leadership skills, social justice attitudes, and diversity attitudes

- over the course of 10 weeks, when compared to students not in service-learning.
- b. Students in both intensive and short-term service-learning courses will show significant increases in general, social, and community service self-efficacy over the course of 10 weeks, when compared to students not in service-learning.
- III. From Time 1 to Time 2, changes in students' civic development (as measured by each of six CASQ subscales) and self-efficacy (as measured by SES and CSSES) will differ such that:
- a. Students in intensive service-learning courses will have greater increases in civic action, interpersonal/problem-solving skills, political awareness, leadership skills, social justice attitudes, and diversity attitudes than those in short-term service-learning courses, who will have greater increases than students not in service-learning.
 - b. Students in intensive service-learning courses will have greater increases in general, social, and community service self-efficacy than those in short-term service-learning courses, who will have greater increases than students not in service-learning.
- IV. From Time 2 to Time 3, students in intensive service-learning courses will increase in civic development (as measured by each of six CASQ subscales) and self-efficacy (as measured by SES and CSSES) such that:

- a. Students in intensive service-learning courses will show significant increases in civic action, interpersonal/problem-solving skills, political awareness, leadership skills, social justice attitudes, and diversity attitudes in comparison to short-term service-learning students and those not in service-learning.
- b. Students in intensive service-learning courses will show significant increases in general, social, and community service self-efficacy in comparison to short-term service-learning students and those not in service-learning.

Research Question

- I. Are levels of civic engagement and self-efficacy at the end of the course related to the following?
 - a. Student performance at site (as measured supervisor ratings of Agency Benefit, Interpersonal Relations, and Diversity Relations)?
 - b. Course expectations (as measured by pretest Learning about Academic Field, Learning about Community, and Contribution to Community scales)
 - c. Course evaluations (as measured by post-test Learning about Academic Field, Learning about Community, and Contribution to Community scales)
 - d. Engagement in reflection (as measured by average reflection rating)

CHAPTER II.

METHOD

Context

The study setting was a large, urban, Catholic university in the Midwest. The university's mission emphasizes the Vincentian value of service, and it has been nationally recognized for its commitment to service-learning. Total enrollment is approximately 25,000 students, of which 64% are undergraduates, 54% are women, and 30% are students of color (<http://www.depaul.edu/emm/facts/index.asp#top>). The university operates on a quarter system, with each quarter lasting for 10 weeks. Participants for the current study were recruited from each of three types of psychology courses described below during the 2009-2010 academic year (IRB# RG052208PSY-R1).

Intensive Service-Learning Courses

Students in the intensive service-learning course included in the study were senior psychology majors concentrating in Human Services. At the end of their junior year, students apply for acceptance into this course, which requires a service placement of 6-8 hours per week over three academic quarters, for a total of at least 60 hours of service per quarter. Prior to enrolling in this course, students must satisfy introductory psychology prerequisites in addition to completing two required courses in applied psychology during their junior year. During the applied psychology courses, students are presented with information about various service sites, but are able to work with any community agency of their choosing that is willing to contract with the student to provide support and

supervision. Beginning in fall quarter of senior year, class meets once per week for lectures on topics relevant to the service experience (i.e., ethics, diversity). Opportunities for reflection include weekly journal assignments which ask students to process their experiences at their site, a final “capstone” paper in which students describe their overall experience, and frequent large- and small-group discussions in which students are encouraged to share their experiences and learn from one another’s experience. Average enrollment in this course is approximately 40 students.

Effort was made to include another group of intensive service-learning students concentrating in Community Psychology. However, low enrollment resulted in a small number of students participating at each time point compared to other courses. Therefore, students from this class were not included in the analyses.

Short-Term Service-Learning Courses

All undergraduate students at DePaul are required to complete an experiential learning course during their academic career. These quarter-long courses require 25 hours of service over 10 weeks. The university defines a community-based service-learning course as one which:

“engages students to learn and develop experientially derived knowledge through active participation in organized service. Students have the opportunity to do meaningful service that meets community-defined needs, relating to a particular course's learning objectives. In cooperation with a public benefit or community organization, students will develop and carry out a social action or service project and reflect upon its implications. The service will be coordinated through the cooperation of the university and the community organization” (<http://steans.depaul.edu/slc.asp>)

These classes typically meet more than once per week, and service sites, assignments and reflection opportunities vary by course. For the current study, students in classes within the psychology department which fit this description during each quarter for one academic year were recruited to participate. In order to enroll in each course, students had to have fulfilled the prerequisite of taking an introductory psychology course. Typical enrollment in these courses ranges from 30 to 60 students.

Control Group

Students were sampled from other advanced psychology courses, including Adolescent Psychology, Cultural Issues in Psychology, and Abnormal Psychology. As with the service-learning courses, these courses also require the completion of an introductory psychology course prior to enrolling. Typical enrollment in these courses is around 50 students. Inclusion criteria were: 1) non-freshman status, and 2) the student was not enrolled in a service-learning course during the duration of the study.

Participants

Participants were undergraduate students enrolled in various advanced psychology courses at the university. Participating classrooms were recruited by emailing instructors for service-learning and non-service-learning courses and asking if they would be willing to allow class time for survey administration. Additionally, all students in service-learning courses were asked to provide contact information for their primary supervisor at their service site.

Over the course of one school year, a total of 398 students drawn from 1 intensive service-learning class ($N = 38$, 1 instructor), 5 short-term service-learning classes ($N = 170$; 4 different instructors), and 6 control classes ($N = 190$; 4 different instructors) participated. The mean age of the total sample was 21.5 years ($SD = 2.6$). See Table 1 for information about demographic variables by type of class. In addition, supervisors for 61 of the service-learning students responded to the request to fill out a brief survey.

Procedure

Data Collection

Data collection occurred in the first week of class (Time 1) in students' classrooms. The principal investigator reviewed procedural information outlined on the information sheet (Appendix A), and students were informed that participation was optional. Once interested students' signatures were obtained, they were given a copy of the information sheet for their records and the questionnaire was administered. The same process was followed in all classrooms after 10 weeks (Time 2: the end of the academic quarter in which each course took place). If students who filled out Time 1 questionnaires were absent at Time 2, they were sent an email with the option to complete the Time 2 survey online. At the end of the year, a third questionnaire (Time 3) was administered in class to students in the year-long course. Students from all other courses who participated in the fall or winter quarter Time 1 surveys were contacted by email at the end of the year and asked to fill out a Time 3 questionnaire in an online format utilizing the Quickdata program. Upon completion of the online

questionnaire, students were invited to enter their contact information in order to enter a drawing for a gift card. Students in spring quarter classes filled out questionnaires at Time 1 and 2 only as the duration of the study was one academic year.

In addition to student surveys, service-learning students were asked for their permission to contact a supervisor at their service site. If they consented, an email was sent to the person identified by each service-learning student as their primary supervisor at Time 2. Supervisors for the intensive service-learning students were also sent an email at Time 3 to provide a second evaluation of these students at the end of their placement. The email provided a link to a secure online Quickdata survey. Upon completion of the questionnaire, supervisors were invited to enter their contact information in order to enter a drawing for a gift card.

Measures

Demographic and Background Information

The first section of the questionnaire (Appendix C) asked for participants' demographic information, including age, gender, ethnicity, and year in school. Additional background information questions about students' current and prior community service and service-learning participation were adapted from the Service Experience Survey (SE; Eyler & Giles, 1999). Students were asked to report current and/or past service-learning involvement and frequency and type of volunteer community service (not connected to a class) in high school. Students

were also asked to indicate their average volunteer community service during college using a 5-point scale from “Never” (0) to “Each week” (5).

At the conclusion of the course, students in the service-learning groups were asked about their service-learning activities, supervision, and engagement in reflection. Specifically, they were asked to indicate total number of service hours, population and type of service activities, frequency of working with people from backgrounds different from their own, and frequency and satisfaction with supervisor meetings. They also rated the importance of several forms of reflection (journaling, other written assignments, class discussions, and informal sharing of experiences) to their learning experience on a scale from “Very Important” (5) to “Very Unimportant” (1). An engagement in reflection score was calculated by reverse-scoring and taking the mean of these four items.

Course Expectations and Satisfaction

Students’ expectations (pre-test) and evaluations (post-test) for their course experience were assessed using the Learning about Academic Field (Appendix D; items 1-5), Learning About the Community (Appendix D; items 6-10), and Contribution to the Community scales (Appendix D; items 11-14) developed by Moely and colleagues (2002). Responses for each scale are rated on a 5-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (5), with scale scores created by taking the mean score of each group of items.

Moely and colleagues reported pre/post-test alphas of .74 and .80 for Learning about Academic Field, which assesses learning from, and interest in course content (sample item: “I will learn/have learned to apply concepts from my

course to real situations”). Time 1 and 2 alphas for Learning about Academic Field for the current study were .85 and .84. The Learning about the Community scale assesses students’ perspectives on their knowledge about community, different cultures, interpersonal effectiveness, and social problems (sample item: “I will become/have become more aware of the community of which I am a part”), and pre/post-test alphas reported by Moely and colleagues (2002) were .89 and .80. Time 1 and 2 alphas for Learning about the Community for the current study were both .84. The authors did not use the Contribution to the Community scale at pre-test; post-test alpha was .77 (sample item: “My service-learning activity met needs of the community”). For the current study, the wording for the items on this scale was adjusted to allow for assessment of service-learning students’ expectations for their contribution to the community at pre-test (i.e., “I expect my service-learning activity to meet needs of the community”). Time 1 and 2 alphas for the present study were .75 and .88.

Civic Development

The Civic Attitudes and Skills Questionnaire (CASQ, Appendix E; Moely et al., 2002) was developed specifically to assess aspects of students’ civic development which may be affected by service-learning participation. The original questionnaire contained 84 items focused on “skills that would be useful in civic endeavors, values related to civic engagement, and the likelihood of action and involvement in community issues” (p. 17). Factor analysis of responses from two samples ($N = 761$ and $N = 725$) of predominantly White, female undergraduate and graduate students in liberal arts courses yielded 44

items which grouped into 6 conceptually meaningful subscales. Civic Action assesses plans for future community involvement (8 items; e.g., “I plan to help others who are in difficulty). Interpersonal and Problem-Solving Skills assesses communication and teamwork abilities (12 items; e.g., “I can work cooperatively with a group of people”). Political Awareness assesses knowledge of current local/national politics (6 items; e.g., “I am knowledgeable of the issues facing the world”). Leadership Skills measures the ability to guide others (5 items; e.g., “I have the ability to lead a group of people”). Social Justice Attitudes measures understanding of institutions’ effect on the individual (8 items; e.g., “It is important that equal opportunity be available to all people”). Finally, Diversity Attitudes assesses appreciation of relationships with diverse others (5 items; e.g. “I enjoy meeting people who come from backgrounds very different from my own”). Responses are rated on a 5-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (5), with scale scores created by taking the mean of each subscale’s items. The authors reported good internal consistency for the measure, with Cronbach’s alpha for the various subscales ranging from .69 to .88. Test-retest reliability over a three-month period for students who did *not* engage in service-learning was also good (.70 or greater in at least one of the two samples) for five of the subscales, while the Interpersonal and Problem-Solving scale demonstrated more variability over time ($r = .56$ and $.62$).

Subsequent research using the CASQ (Moely, Furco, & Reed, 2008) with 2,233 students in 7 different higher education settings provides preliminary support for its use with a somewhat more diverse population (64% female; 60%

White, 10% Latino, 10% African American, 10% Asian, 10% Other). However, some studies which have utilized the CASQ with college students (e.g. Schamber & Mahoney, 2008; Simons & Cleary, 2005) do not include full demographic or psychometric information, making it difficult to discern its utility and validity with different groups of students. Prior to the current study, we conducted a pilot investigation of the CASQ's reliability with a sample of 34 university students (71% White, 12% African American, 8% Middle Eastern, 5% undisclosed) in a previous cohort of the year-long service-learning course (IRB# RG052208PSY). Cronbach's alphas were comparable and in some cases higher than those reported by Moely and colleagues (2002), which suggested that the CASQ was acceptable for use with the current study. Time 1/Time 2 alphas for the present study were .88/.90 for Civic Action, .79/.83 for Interpersonal and Problem-Solving Skills, .79/.80 for Leadership Skills, .70/.74 for Social Justice Attitudes, and .73/.72 for Diversity Attitudes.

Self-Efficacy

Students' broad feelings of personal mastery across a variety of situations were assessed using the Self-Efficacy Scale (SES, Appendix F; Sherer et al., 1982). The authors report that factor analysis with two samples of college students ($N = 376$ and $N = 298$) produced two subscales: General Self-Efficacy, regarding overall beliefs about personal effectiveness, persistence, and success (17 items; e.g. "When I make plans, I am certain I can make them work") and Social Self-Efficacy, related to beliefs about one's social competence and confidence (6 items; e.g. "If I see someone I would like to meet, I go to that

person instead of waiting for him or her to come to me”). Responses are rated on a 5-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (5), and scale scores are created by taking the mean of responses to the items in each subscale. Initial examination of the two subscales by Sherer and colleagues yielded a Cronbach’s alpha of .86 for General Self-Efficacy and .71 for Social Self-Efficacy. Further study with another sample of undergraduate students examined construct validity of the SES by comparing it to other personality measures, and results indicated it was an appropriate measure for assessing feelings of personal ability to initiate and persist in behavior (Sherer & Adams, 1983).

More recent research with the SES continues to support its use with young adults. Woodruff & Cashman’s (1993) study of 400 college students demonstrated criterion validity for the SES as it differentiated performance expectations. DeWitz, Woolsey, and Bruce (2009) used the General Self-Efficacy subscale with a sample of college students and found the same Cronbach’s alpha (.86) as the original study, and the measure’s validity was supported by its correlation with several other measures of self-efficacy as well as a Purpose in Life measure. Their sample of 344 was 68% female and predominantly White (76%) and freshmen (79%), but the SES has been found to be a reliable measure with more diverse samples, including Malaysian college students (Imam, 2006) and Hindi adults (translated version; Mattoo & Malhotra, 1998). For the current study, Cronbach’s alpha for the General Self-Efficacy scale was .86 at both Time 1 and 2, with lower alpha levels for Social Self-Efficacy (.67/.72).

Participants' belief in their ability to make a significant difference through community service was assessed using the Community Service Self-Efficacy Scale (CSSES, Appendix G; Reeb et al., 1998). The CSSES includes 10 items (e.g. "I am confident that I can help individuals in need by participating in community service activities") with a 10-point response range from "Quite Uncertain" (1) to "Certain" (10). The scale score is created by averaging the responses to the 10 items. The authors reported strong internal validity with alphas over .90 in a number of different samples of college students (Reeb et al., 1998; Reeb, 2006), and reported test-retest reliability of .62 over the course of a semester for students not in service-learning. It should be noted that other than one study of African American adolescents (Reeb, 2006), the author's samples typically included predominantly females and an overwhelming majority of White students, so results from the use of the scale with ethnic minority students must be interpreted with caution. Outside of the author's own research, the CSSES has also been used with populations other than college students, such as eldercare workers (Sánchez & Ferrari, 2005). For the current study, Cronbach's alpha was .94 at Time 1, and .95 at Time 2.

Social Desirability Responding

The use of self-report measures which assess sensitive topics such as diversity attitudes often raises questions of whether participants respond in a way that is socially desirable regardless of their true feelings. Moely and colleagues (2002) used 12 items from two different social desirability scales in their research with the CASQ, and found a significant correlation with three out of six

subscales. However, their description does not include exact specification of the social desirability items used or the rationale for choosing those particular items. The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) is the most frequently used measure of social desirability, and has yielded a significant correlation with both the General Self-Efficacy and Social Self-Efficacy subscales of the SES (Sherer et al., 1982). Given time constraints for questionnaire administration, the current study included a short form of the Marlowe-Crowne. Multiple shortened versions of the original measure have been developed with the claim that they adequately represent the original. However, a comparison of these short forms by Fischer & Fick (1993) concluded that Short Form XI, developed by Strahan & Gerbasi (1972) was the strongest version, and thus this was the measure included in the present study (Appendix H). Items are rated “True” or “False,” which are scored as 0 or 1 after reverse-coding some items. Items are summed to create a scale score, with higher scores indicating more socially desirable responding.

Supervisor Evaluation

Service-learning students were evaluated by their supervisor using items taken from Miron and Moely’s (2006) Assessment of Community Agency Perceptions (Appendix I). Constructs measured included Agency Benefit (Items 1-3; e.g., “To what extent did you find your service-learner effective in helping your organization meet its goals?”), Interpersonal Relations (Items 4-8; e.g., “To what extent do you feel your service-learner was sensitive to the needs and problems facing this particular community?”), and Diversity Relations (Items 9-

11; e.g., “To what extent did you perceive that the student valued working with people of a different race, social class, or culture?”), with responses given on a Likert scale from 1 to 5, with higher scores indicating more positive reports. The authors report Cronbach’s alpha for the scales ranging from .66 to .78 based on their use with a sample of 40 site coordinators of various community agencies. For the current study, alpha reliability at Time 2 was .74 for Agency Benefit, .66 for Interpersonal Relations, and .68 for Diversity Relations.

CHAPTER III

RESULTS

This longitudinal study examined the relationship between service-learning participation and students' civic development and self-efficacy. The current chapter describes the statistical analyses that were utilized for each of the hypotheses and research questions. Preliminary analyses and hypothesis testing using inferential statistics are discussed.

Preliminary Analyses

Initial examination of skewness and kurtosis was conducted to evaluate whether study variables met assumptions of normality. Kurtosis values for all variables were acceptable (<3), with the exception of Time 3 Diversity Attitudes scores, which demonstrated moderate kurtosis (4.13). While visual inspection of histograms indicated negative skew in several dependent variables, the large sample size and magnitude of the skew statistic (<2) suggest that non-normality is not a concern. Therefore, the data were judged to be appropriate for parametric analysis.

Table 1 presents demographic information for control, short-term service-learning, and intensive service-learning groups at Time 1. Of the total sample, 71% completed the Time 2 survey, while only 19% completed the survey at Time 3. Retention from Time 1 was greater in the intensive group (Time 2 $N = 32$ [84.2%], Time 3 $N = 32$ [84.2%]) than the short-term group (Time 2 $N = 113$ [66.5%], Time 3 $N = 25$ [14.7%]) and the control group (Time 2 $N = 138$ [72.6%], Time 3 $N = 17$ [8.9%]). In order to assess for possible attrition bias,

participants' baseline scores were compared. Significant differences in Time 1 civic development and self-efficacy scores were not found for students who completed the Time 3 survey versus those who dropped out.

Table 1.

Demographic Information

Demographic Characteristic	Intensive <i>N</i> = 38	Short-term <i>N</i> = 170	Control <i>N</i> = 190
Ethnicity			
White/Caucasian	<i>N</i> = 28 (73.7%)	<i>N</i> = 92 (54.1%)	<i>N</i> = 118 (62.1%)
Latino/Hispanic	<i>N</i> = 4 (10.5%)	<i>N</i> = 26 (15.3%)	<i>N</i> = 33 (17.4%)
Black/African American	<i>N</i> = 2 (5.3%)	<i>N</i> = 14 (8.2%)	<i>N</i> = 7 (3.7%)
Asian	--	<i>N</i> = 14 (8.2%)	<i>N</i> = 16 (8.4%)
Biracial/Mixed	<i>N</i> = 2 (5.3%)	<i>N</i> = 4 (2.4%)	<i>N</i> = 5 (2.6%)
Other	--	<i>N</i> = 12 (7.1%)	<i>N</i> = 6 (3.2%)
No response	<i>N</i> = 2 (5.3%)	<i>N</i> = 8 (4.7%)	<i>N</i> = 5 (2.6%)
Year			
Sophomore	--	<i>N</i> = 10 (5.9%)	<i>N</i> = 51 (26.8%)
Junior	--	<i>N</i> = 76 (44.7%)	<i>N</i> = 65 (34.2%)
Senior	<i>N</i> = 38 (100%)	<i>N</i> = 84 (49.4%)	<i>N</i> = 74 (38.9%)
Gender			
Female	<i>N</i> = 33 (87%)	<i>N</i> = 106 (62%)	<i>N</i> = 157 (83%)
Male	<i>N</i> = 5 (13%)	<i>N</i> = 64 (38%)	<i>N</i> = 33 (17%)
Age			
	<i>M</i> = 22.11 <i>SD</i> = 4.66	<i>M</i> = 22.05 <i>SD</i> = 2.40	<i>M</i> = 21.11 <i>SD</i> = 2.18
College Community Service			
	<i>M</i> = 2.11 <i>SD</i> = 1.31	<i>M</i> = 1.00 <i>SD</i> = 1.14	<i>M</i> = 1.46 <i>SD</i> = 1.30

Correlational relationships were examined to assess the association between civic attitudes and self-efficacy scores and several potentially related variables at Time 1 (see Table 2). Bivariate Pearson correlations were calculated between outcome measures and volunteer community service participation during college and social desirability responding. Additionally, point-biserial correlations were calculated between outcome measures and the dichotomous variable of gender (with Male = 1, Female = 2). Results demonstrated that females exhibited significantly higher civic action, interpersonal/problem-solving skills, social justice attitudes, diversity attitudes, and community service self-efficacy scores. Further, college community service participation was significantly positively correlated with all civic and self-efficacy variables. Social desirability scores were significantly positively correlated with interpersonal/problem-solving skills, leadership skills, and diversity attitudes scores as well as all self-efficacy variables.

Table 2.

Intercorrelations Among Study Variables at Time 1 for All Participants ($N = 398$)

	Gender	College CS	Social Desir.	Civic Action	Int/Pro Skills	Polit. Awar.	Leader- ship	Soc. Just.	Divers. Att.	Gen. SE	Soc. SE	Com. Ser. SE
Gender	1											
College Community Service	.18**	1										
Social Desirability	.01	-.05	1									
Civic Action	.28**	.44**	.09	1								
Interpersonal/ Problem- Solving Skills	.11*	.17**	.23**	.39**	1							
Political Awareness	.01	.16**	.09	.34**	.23**	1						
Leadership Skills	.05	.21**	.16**	.37**	.55**	.22**	1					
Social Justice Attitudes	.13*	.18**	.01	.39**	.35**	.35**	.16**	1				
Diversity Attitudes	.22*	.17**	.20**	.39**	.53**	.14*	.37**	.30**	1			
General Self- Efficacy	.01	.18**	.35**	.35**	.63**	.14*	.60**	.20**	.52**	1		
Social Self- Efficacy	.08	.13*	.12*	.15**	.46**	.07	.51**	.09	.49**	.49**	1	
Community Service Self- Efficacy	.22**	.32**	.13*	.63**	.43**	.25**	.32**	.32**	.33**	.33**	.19**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Primary Analyses

Hypothesis I

It was predicted that at Times 1, 2, and 3, students' civic development and self-efficacy would differ by group, such that those in intensive service-learning would have significantly higher scores than those in short-term service-learning, who in turn would have higher scores than students not in service-learning. Means and standard deviations were calculated for each outcome variable, including all participating students at Times 1, 2, and 3. At each time point, a separate one-way analysis of covariance (ANCOVA) was conducted for each dependent variable. The independent variable, group, included three levels: intensive service-learning, short-term service-learning, and control. Gender, community service participation during college and social desirability responding were included as covariates when statistically significantly correlated with the dependent variable and the homogeneity-of-regression (slopes) assumption was met. Additionally, Time 1 scores on each dependent variable were included as a covariate in Time 2 and 3 ANCOVAs to control for initial differences among groups. Results are displayed in Table 3.

Table 3.

Means and Standard Deviations for Civic Attitudes and Skills Outcomes and
Results of ANCOVA Tests, All Students at Each Time Point

Variable	Time Point	Intensive Mean (<i>SD</i>)	Short-term Mean (<i>SD</i>)	Control Mean (<i>SD</i>)
Civic Action				
	1	4.13 (.58)	3.71 (.67)	3.90 (.60)
	2	4.13 (.57)	3.79 (.74)	3.86 (.64)
	3	4.07 (.45)	4.09 (.92)	3.88 (.68)
Interpersonal/ Problem-Solv. Skills				
	1	4.33 (.38)	4.15 (.40)	4.21 (.37)
	2	4.41 (.32)	4.15 (.47)	4.19 (.34)
	3	4.43 (.36)	4.31 (.47)	4.28 (.52)
Political Awareness				
	1	3.36 (.48)	3.28 (.49)	3.20 (.49)
	2	3.44 (.43)	3.30 (.52)	3.20 (.51)
	3	3.38 (.53)	3.63 (.59)	3.15 (.64)
Leadership Skills				
	1	3.87 (.61)	3.73 (.66)	3.79 (.61)
	2	3.88 (.58)	3.76 (.59)	3.71 (.79)
	3	4.03 (.52)	3.71 (.79)	3.88 (.64)
Social Justice				
Attitudes				
	1**	4.27 (.42)	3.83 (.52)	3.96 (.47)
	2	4.31 (.42)	3.89 (.53)	3.98 (.50)
	3	4.35 (.34)	3.90 (.71)	4.15 (.57)
Diversity				
Attitudes				
	1	4.18 (.48)	3.93 (.60)	3.94 (.57)
	2	4.24 (.47)	3.90 (.67)	3.95 (.49)
	3	4.07 (.47)	3.97 (.89)	3.83 (.61)

Table 3 (cont).

General				
Self-Efficacy				
	1	3.92 (.44)	3.77 (.49)	3.75 (.48)
	2	3.90 (.45)	3.71 (.50)	3.67 (.47)
	3	3.91 (.37)	3.81 (.57)	3.85 (.51)
Social				
Self-Efficacy				
	1	3.49 (.65)	3.56 (.60)	3.47 (.57)
	2	3.61 (.54)	3.54 (.59)	3.50 (.55)
	3	3.55 (.53)	3.45 (.84)	3.50 (.57)
Community Service				
Self-Efficacy				
	1	8.61 (1.12)	7.70 (1.55)	7.95 (1.58)
	2	8.80 (1.11)	8.02 (1.37)	7.98 (1.55)
	3	8.82 (1.01)	8.03 (1.95)	7.95 (1.52)

Note. Intensive group Time 1 $N = 38$, Time 2 $N = 32$, Time 3 $N = 32$

Short-term group Time 1 $N = 170$, Time 2 $N = 113$, Time 3 $N = 25$

Control group Time 1 $N = 190$, Time 2 $N = 138$, Time 3 $N = 17$

** $p < .01$

At Time 1, the ANCOVA was significant for only one dependent variable, social justice attitudes, $F(2, 349) = 10.74$, $p < .001$. However, only 13% ($\omega^2 = .13$) of the total variance in social justice attitudes scores was accounted for by the three groups after controlling for gender. Follow-up tests were conducted to evaluate pairwise differences among the adjusted means for group. The Bonferroni procedure was used to control for Type I error across the three pairwise comparisons ($\alpha' = .01/3 = .003$). The results showed that at Time 1, students in the intensive service-learning group had higher social justice attitudes scores than those in the short-term and control groups, controlling for the effect of

gender. ANCOVAs at Times 2 and 3 were not significant, suggesting that civic development and self-efficacy scores did not differ as a function of service-learning participation when controlling for Time 1 scores.

Hypothesis II and III

It was predicted that students in intensive and short-term learning courses would increase in civic development and self-efficacy from Time 1 to Time 2 (the course of an academic quarter) when compared to students not in service-learning, with greater increases for students in the intensive group over those in the short-term group. A series of 2 (Time) x 3 (Group) repeated measures, mixed-model analyses of covariance (ANCOVA)s were performed on each dependent variable (see Table 4). The between subjects independent variable, group, had three levels: intensive service-learning ($N = 32$), short-term service-learning ($N = 86$), and control ($N = 124$). The number of students in each group reflects the total number of students who completed surveys at *both* Time 1 and Time 2. The within-subjects independent variable consisted of Time 1 (baseline) and Time 2 (end of quarter) measurements. Gender, community service participation during college and social desirability responding were included as covariates when statistically significantly correlated with the dependent variable. Results demonstrated that interaction effects were not significant for any of the variables, suggesting that intensive service-learning, short-term service-learning, and control students did not differ in changes over time. Therefore, the hypotheses were not supported.

Table 4.

Repeated Measures Analysis of Variance (ANOVA) Results for CivicDevelopment and Self-Efficacy from Time 1 to Time 2

Variable	Time Point	Intensive Mean (<i>SD</i>)	Short-term Mean (<i>SD</i>)	Control Mean (<i>SD</i>)
Civic Action				
	1	4.16 (.54)	3.72 (.67)	3.86 (.60)
	2	4.13 (.56)	3.80 (.73)	3.87 (.62)
Interpersonal/ Problem-Solv. Skills				
	1	4.35 (.38)	4.16 (.36)	4.20 (.35)
	2	4.41 (.31)	4.13 (.48)	4.20 (.35)
Political Awareness				
	1	3.38 (.49)	3.23 (.47)	3.14 (.48)
	2	3.44 (.43)	3.33 (.46)	3.18 (.52)
Leadership Skills				
	1	3.87 (.60)	3.73 (.63)	3.75 (.61)
	2	3.88 (.58)	3.75 (.60)	3.71 (.59)
Social Justice Attitudes				
	1	4.32 (.36)	3.77 (.49)	3.91 (.47)
	2	4.31 (.42)	3.85 (.53)	3.98 (.47)
Diversity Attitudes				
	1	4.16 (.49)	3.97 (.60)	3.93 (.54)
	2	4.24 (.47)	3.89 (.63)	3.97 (.50)

Table 4, cont.

General				
Self-Efficacy				
	1	3.96 (.41)	3.79 (.46)	3.75 (.47)
	2	3.90 (.45)	3.70 (.49)	3.68 (.48)
Social				
Self-Efficacy				
	1	3.33 (.58)	3.43 (.53)	3.39 (.47)
	2	3.43 (.41)	3.46 (.50)	3.41 (.49)
Community Service				
Self-Efficacy				
	1	8.70 (1.01)	7.71 (1.34)	7.80 (1.65)
	2	8.80 (1.11)	8.01 (1.34)	8.04 (1.35)

Note. Intensive group $N = 32$, Short-term group $N = 86$, Control group $N = 124$

Hypothesis IV

It was predicted that civic development and self-efficacy scores would increase from Time 2 to Time 3 for students in intensive service-learning courses when compared to students in short-term service-learning and those not in service-learning. A series of 2 (Time) x 3 (Group) repeated measures, mixed-model ANCOVAs were performed on each dependent variable (see Table 5). The between subjects independent variable, group, had three levels including students who filled out surveys at both Times 2 and 3: intensive service-learning ($N = 27$), short-term service-learning ($N = 20$), and control ($N = 11$). The within-subjects independent variable consisted of Time 2 (end of quarter) and Time 3 (end of year) measurements. Again, gender, community service participation during

college and social desirability responding were included as covariates when statistically significantly correlated with the dependent variable.

Table 5.

Repeated Measures Analysis of Variance (ANOVA) Results for Civic
Development and Self-Efficacy from Time 2 to Time 3

Variable	Time Point	Intensive Mean (<i>SD</i>)	Short-term Mean (<i>SD</i>)	Control Mean (<i>SD</i>)
Civic Action				
	2	4.09 (.58)	4.01 (.84)	3.93 (.49)
	3	4.13 (.44)	4.06 (.98)	3.96 (.55)
Interpersonal/ Problem-Solv. Skills				
	2	4.40 (.31)	4.19 (.43)	4.30 (.34)
	3	4.43 (.36)	4.26 (.48)	4.34 (.46)
Political Awareness*				
	2	3.42 (.44)	3.38 (.60)	3.39 (.46)
	3	3.38 (.47)	3.60 (.62)	3.29 (.52)
Leadership Skills				
	2	3.85 (.62)	3.64 (.69)	3.76 (.71)
	3	4.00 (.51)	3.67 (.83)	3.89 (.75)
Social Justice Attitudes				
	2	4.28 (.43)	4.06 (.49)	4.25 (.26)
	3	4.34 (.35)	3.82 (.76)	4.27 (.45)
Diversity Attitudes				
	2	4.23 (.48)	3.82 (.86)	3.84 (.56)
	3	4.08 (.51)	3.90 (.94)	4.10 (.47)

Table 5, cont.

General				
Self-Efficacy				
	2	3.90 (.47)	3.79 (.54)	3.76 (.43)
	3	3.91 (.40)	3.82 (.60)	3.87 (.50)
Social				
Self-Efficacy*				
	2	3.42 (.43)	3.39 (.65)	3.34 (.44)
	3	3.42 (.43)	3.32 (.67)	3.67 (.41)
Community Service				
Self-Efficacy				
	2	8.71 (1.16)	7.92 (1.41)	8.54 (.81)
	3	8.84 (1.05)	7.69 (2.04)	8.08 (.97)

Note. Intensive group $N = 27$, Short-term group $N = 20$, Control group $N = 11$

* $p < .05$

Interaction effects of Time x Group were not significant for most outcome variables, indicating that group differences over time were not observed. The exceptions were political awareness [$F(2, 54) = 4.34, p < .05$] and social self-efficacy [$F(2, 53) = 3.60, p < .05$]. However, changes over time for these outcomes were *not* observed in the intensive service-learning group, with an increase in political awareness from Time 2 to Time 3 for the short-term service-learning group, and an increase in social self-efficacy for the control group. Given that changes were not in the expected direction, the hypothesis was not supported.

Further analyses for each hypothesis were also conducted comparing control students to *all* service-learning students collapsed into one group, as well as comparing intensive service-learning students to all others. Grouping the students differently did not significantly change the results (the null hypothesis

was not rejected). Additionally, when control variables were removed from the analysis, results remained non-significant.

Research Question

The research question asked whether civic development and self-efficacy after participating in service-learning for one quarter are related to course expectations, course evaluations, engagement in reflection, or student performance rated by site supervisor. Tables 6 and 7 displays descriptive information for each variable in these categories.

Table 6.

Means and Standard Deviations for Course Variables

Variable	Intensive Mean (<i>SD</i>)	Short-term Mean (<i>SD</i>)	Control Mean (<i>SD</i>)
Time 1 Expectations for Learning about Academic Field	4.34 (.83)	3.93 (.69)	4.24 (.57)
Time 2 Evaluation of Learning about Academic Field	4.19 (.71)	3.79 (.77)	4.19 (.62)
Time 1 Expectations for Learning about Community	4.25 (.80)	4.19 (.60)	3.96 (.60)
Time 2 Evaluation of Learning about Community	4.22 (.55)	4.00 (.69)	3.69 (.66)
Time 1 Expectations for Contribution to Community	4.13 (.65)	3.97 (.63)	--
Time 2 Evaluation of Contribution to Community	4.11 (.77)	3.79 (.89)	--
Importance of Reflection Activities	3.90 (.84)	3.51 (.81)	--
	<i>N</i> = 30	<i>N</i> = 109	

Note. Except where noted, Intensive group Time 1 *N* = 37, Time 2 *N* = 32
Short-term group Time 1 *N* = 163, Time 2 *N* = 113
Control group Time 1 *N* = 176, Time 2 *N* = 138

Table 7.

Means and Standard Deviations for Supervisor Evaluations at Time 2

Variable	Intensive Mean (<i>SD</i>)	Short-term Mean (<i>SD</i>)
Agency Benefit	4.57 (.51)	4.63 (.61)
Interpersonal Relations	3.97 (.66)	4.62 (.57)
Diversity Relations	4.62 (.57)	4.65 (.39)

Note. Intensive group $N = 14$, Short-term group $N = 33$

Nine separate stepwise regression analyses were conducted for each outcome variable at Time 2 (civic action, interpersonal/problem-solving skills, political awareness, leadership skills, social justice attitudes, diversity attitudes, general self-efficacy, social self-efficacy, and community service self-efficacy) with intensive and short-term service-learning students collapsed into one group. Predictor variables were entered in a stepwise procedure which does not require specification of the order of entry, which is appropriate for exploratory analyses. Predictors included student ratings of the importance of reflection activities (Time 2); expectations (Time 1) and evaluation (Time 2) of learning about the academic field, learning about the community, and contribution to the community; and supervisor ratings of students' benefit to the agency, interpersonal relations, and diversity relations. Significant predictors for each dependent variable are listed in Table 8 (leadership and diversity attitudes are not included in table as no significant predictors of these outcomes were found). Results indicated that supervisor ratings were not predictive of any student outcome variables. Importance of reflection was the most consistent predictor across outcome

variables, such that higher ratings of the importance of reflection activities to students' learning was associated with higher interpersonal/problem-solving skills, political awareness, social justice attitudes, general self-efficacy, and community service self-efficacy at the end of the academic quarter.

Table 8.

Results of Stepwise Regressions Predicting Time 2 Outcomes for All Service-Learning Students, $N = 145$

<i>Outcome</i>	<i>Predictors</i>	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>	R^2	<i>Adj. R²</i>
Civic Action	T1 Learn about Community	.37	.59	.40	2.65	.01	.16	.14
Interpers./Prob. Solv.	Importance of Reflection	.19	.06	.43	3.10	.004		
	T2 Contribution to Community	.15	.06	.32	2.28	.03	.31	.28
Political Awareness	T2 Learn about Field	.26	.09	.40	2.75	.01		
	Importance of Reflection	.24	.09	.41	2.79	.01		
	T1 Learn about Community	-.27	.12	-.34	-2.24	.03	.34	.28
Social Justice Att.	Importance of Reflection	.24	.09	.40	2.76	.01		
	T1 Learn about Academic Field	.23	.10	.32	2.25	.03	.37	.31
General Self-Efficacy	Importance of Reflection	.21	.09	.35	2.27	.03	.12	.10
Social Self-Efficacy	T2 Learn about Community	.21	.09	.34	2.22	.03	.12	.09
Comm. Serv. Self-Eff.	T1 Learn about Academic Field	.70	.24	.40	2.29	.01		
	Importance of Reflection	.54	.20	.37	2.69	.01	.42	.39

** Significant at the 0.01 level (2-tailed).

CHAPTER IV

DISCUSSION

The current study examined civic attitudes and sense of self-efficacy in college students participating in service-learning courses. Developmental and social psychological theory suggest that the period of emerging adulthood involves the exploration of personal identity which may result in a shifting of perspectives as one is exposed to new contexts (Hardy, Pratt, Pancer, Olsen, & Lawford, 2011). Advocates of service-learning in higher education assert that course-based service programs provides such a context for college student growth as learning expands from the classroom to the community, with the experience of providing help to others acting to strengthen students' belief in their own abilities and commitment to engaged citizenship (Colby, Ehrlich, Beaumont, & Stephens, 2003). A growing body of research supports this claim, with several nationwide studies of service-learning participants indicating positive outcomes in students' feelings about themselves and working with others in diverse settings (Bringle & Steinberg, 2010; Eyler & Giles, 1999; Astin et. al, 2000). Many smaller-scale studies, often of a single classroom or type of service experience, have also documented benefits of service-learning for student development.

While results from previous studies have generally been promising, methodological issues have provided challenges for drawing general conclusions from the service-learning literature (Payne, 2000). One such issue is the widely varying definitions of constructs, both regarding what constitutes service-learning itself as well as outcomes. Other concerns regarding research design include non-

validated measurement, with studies utilizing single items or idiosyncratic scales, and the frequent lack of comparison groups. Further, some studies which suggest positive outcomes of service-learning are retrospective (e.g., Ngai, 2006; Majewski; 2007) leaving unanswered questions about patterns of change over time. The current study aimed to build on the existing literature while addressing a number of these concerns. In order to examine relative changes in civic attitudes and self-efficacy among students with different levels of exposure to service-learning programs, the study compared those in intensive and short-term service-learning courses to a control group utilizing a longitudinal design, validated measures, and data collection points at the beginning and end of an academic quarter as well as the end of the school year. Further, supplemental data was gathered to explore the research question of how students' course experience and their supervisor's evaluations might be related to outcomes. Results from this study have implications for both future service-learning research and program development, suggesting a need for continued assessment of variation in student experiences.

Civic Development and Self-Efficacy

Overall findings from the current study did not support differences between service-learning students and a comparison group in civic attitudes or self-efficacy at the beginning of the quarter, after ten weeks, or at the end of the academic year. The lack of distinction between groups contradicts indications from previous research demonstrating positive outcomes for service-learning participants in relation to non service learners (Eyler & Giles, 1999; Astin et al.,

2000). These unexpected findings may be partially related to similarities of the study's population across groups. All students were drawn from advanced psychology courses attending a university with an explicit mission of commitment to service. It is possible that students who take upper-level psychology classes (many of whom have chosen or are likely to choose psychology as a major) have greater awareness of civic issues due to other courses or outside interest, and therefore may show less variability in civic attitudes and community service self-efficacy than students in other disciplines. Although they did not take a service-learning course during the duration of the study, students in the control group were likely aware of the university experiential learning requirement and/or the Vincentian focus on helping others. This particular university climate may transcend individual courses or service experiences in affecting students' civic and personal development. It is notable that when additional analyses were run with students who had had *any* past service-learning experience during college removed from the control group, there remained a similar lack of differences among groups.

The study also sought to differentiate the effects of an intensive (year-long, 6-8 hours per week) versus short-term (ten weeks, 3 or less hours per week) service-learning experience. It has been suggested that greater involvement at the service site promotes greater benefits for students (Aberle-Grasse, 2000; Piliavin, 2005), and previous research has begun to demonstrate a positive association between time invested in service and both civic and personal outcomes (Fenzel & Peyrot, 2005; Swick & Rowls, 2000; Mabry, 1998). However, results from each

assessment point in the current study indicated that the sole difference among groups was for social justice attitudes at pretest, with intensive service-learning students demonstrating greater understanding of social justice concerns than students in the short-term service-learning and control groups. This finding provided support for the assumption that students who choose to participate in the Human Services concentration, thereby committing to a long-term service project, would have a heightened awareness of social justice issues over those in the other groups at the outset of their course experience. However, at the end of the quarter no significant differences were found among groups for any of the civic development or self-efficacy variables. It is possible that ten weeks is not sufficient to solidify changes which other studies have documented over the course of a semester (often 16 weeks or more). Service-learning theory suggests that students move through different stages of change before arriving at more complex learning and deeper attitudinal shifts (Sheckley & Keeton, 1997; Dreuth & Dreuth-Frewell, 2002; Kiely, 2005). Perhaps longer-term involvement in service is necessary in order for this integration to occur, but more research is necessary to quantify the process of change. While the current study included a third assessment point designed to examine the effects of service-learning participation beyond a single quarter, the attrition rate makes group comparisons at the end of the year less meaningful.

A further complicating factor in examining the impact of service-learning on civic development and self-efficacy is the variability in course and service experiences for the students in this study. Many studies focus on one class or type

of service experience, thereby limiting generalizability. This study sought to address that issue by including a range of service-learning experiences. However, a drawback of this variability is the difficulty in accounting for differences in quality of students' experience which may affect outcomes (Payne, 2000). Given the range of placement options across and within classes, some students may have had fewer experiences which have been associated with positive outcomes, such as direct contact with service recipients (Mabry, 1998) or opportunities for skill mastery (Cone, 2009). Some students may also have encountered disillusioning experiences which have a negative impact on certain civic attitudes as has been described in a minority of studies (Schamber & Mahoney, 2008; Simons & Cleary, 2005). These aspects of student experience must be given further attention in order to specify the types of service which promote positive growth. In addition to the wide-ranging service sites attended by students in the current study, the type of coursework varied, with some classes focused more specifically on topics related to the outcomes of interest. For example, the fact that two of the short-term service-learning classes centered on social justice issues may have increased civic development scores in this group. As such, future research considering instructor or curriculum effects on outcomes is warranted.

An additional possible explanation for the lack of differences among groups on civic development may be related to measurement. Assessment of civic attitudes and commitment to service has varied widely due to challenges in defining the construct (Zaff, Boyd, Li, Lerner, & Lerner, 2010). In the current study, the Civic Attitudes and Skills Questionnaire (CASQ) was selected in part

due to its development as an instrument specific to service-learning research and inclusion of a range of factors which are conceptually related to civic development. However, the significant positive correlation of each of the six subscales with one another prompts challenges in determining the unique process of each outcome. Although the correlations generally ranged from low to moderate, students' tendency to respond similarly across subscales could have obscured actual differences between outcomes. For example, interpersonal/problem-solving skills and diversity attitudes were two of the more highly correlated subscales despite being presumably independent aspects of civic development. While qualitative studies have demonstrated significant effects of service-learning participation on students' civic development (Meaney et al., 2008; Leung et al., 2007; Bliesner & Artale, 2001), more attention may need to be given to developing adequately sensitive quantitative measures. In order to improve construct validity, the development of these measures should include comparison to established instruments.

In addition to the lack of cross-sectional differences among groups at each time point, the study did not demonstrate significant improvements over time in civic attitudes and skills for the service-learning students. This result may be related to initial high scores, which were evident despite controlling for social desirability. Given concerns about ceiling effects in service-learning research (Metz & Youniss, 2005), an important assessment strategy may be framing questions to connect directly to students' course experiences at posttest (e.g., "How much do you feel your commitment to service has changed as a result of

your participation in this course?”). For example, Gelmon and colleagues (2001) designed a survey with explicit instructions that students report how their service-learning experience “has influenced your perspective on learning, your view of service, your choice of major/career, and your perspective on working in a diverse community” (p. 32).

Similar to the results for civic development, findings did not support longitudinal differences among groups in general and social self-efficacy. Students’ overall sense of competence and effectiveness may remain generally stable across varied service experiences, whereas types of efficacy more specific to service tasks may be more directly affected by service-learning. For example, studies have found positive effects of service-learning on self-efficacy specific to students’ chosen career, such as teacher self-efficacy (Stewart, Allen, and Bai, 2010) or counselor self-efficacy (Barbee, Scherer & Combs, 2003). Similarly, Tucker & McCarthy (2001) found that presentation self-efficacy, as measured with a scale created by the researchers, improved for those undergraduates in business courses who participated in a service project involving presenting business concepts to youth. In the current study, the Community Service Self-Efficacy Scale (CSSES) was included in an attempt to hone in on service-specific attitudes, and findings did not support changes over time even in this area. Recent publications about the CSSES acknowledge a ceiling effecting certain populations and provides alternative versions of the measure (Reeb, Folger, Langsner, Ryan, & Crouse, 2010). Specifically, a version was developed with similar items framed by asking students to compare themselves to an individual with 10 years of

community service experience. This version, titled the Community Service Self-efficacy Scale – Sensitive to Change (CSSES-SC) showed differences between a service-learning class and a control class in posttest scores when the original CSSES did not show significant differences.

Relationship of Additional Student and Supervisor Variables to Outcomes

Exploratory analyses were conducted to assess the relationship between student perspectives on their experience and outcomes after ten weeks. Of the variables assessed, the most reliable predictor of outcomes was engagement in reflection. In other words, students' average rating of the importance of various reflection activities explained some of the variance in their interpersonal/problem-solving skills, political awareness, social justice attitudes, general self-efficacy, and community service self-efficacy scores at Time 2. Reflection has been identified by some authors as a critical component of service-learning courses (Wang & Rodgers, 2006; Hunter & Brisbin, 2000; Strain, 2005). These preliminary findings suggest that further research should examine processes by which reflecting on service experiences through writing, class discussion, or other outlets, might enhance student development.

In addition to reflection, previous research has indicated that other cognitive processes, such as students' expectations for their course experience or their later appraisal of their learning, could be related to the degree of positive change they experience during their service participation (Sheckley & Keeton, 1997; McKenna and Rizzo, 1999). The results of the current study demonstrated some connections between these variables and outcomes of interest. For example,

service-learning students' pretest *expectations* for learning about the community was a significant predictor of their civic action score after ten weeks. Their *evaluation* after ten weeks of their learning about the community was a significant predictor of their feelings of social self-efficacy. However, a consistent pattern among these variables did not emerge, suggesting a need for further examination of the relationship between cognitive factors and specific outcomes.

Finally, results demonstrated that supervisors' evaluation of students' benefit to the agency, interpersonal skills, and diversity relations were not predictive of any of the civic action or self-efficacy outcomes at the end of the quarter. However, the low response rate of supervisors to the online survey limits the interpretation of results. Of those supervisors who responded, it is notable that they tended to rate service-learning students highly across the board. Further research is needed to assess the relationship between student site performance, as judged by outside evaluators, and outcomes.

Limitations

Several characteristics of the groups of participants in the current study represented limitations for the research. One such limitation is the lack of random assignment to groups; self-selection of participants of participants has been identified as a problematic area within service-learning research (Bringle & Steinberg, 2010; Metz & Youniss, 2005). Additionally, the intensive group was much smaller than the short-term and control groups, and contained only one class. This class further differed from the short-term group in that students were voluntarily committing to a year of service, versus fulfilling a university

requirement. An additional limitation related to sample size is the attrition rate from Time 2 to Time 3. Outside of the intensive group whose Time 3 data was collected in class, very few students responded to the online version of the survey at the end of the year. Therefore, Time 3 scores for the short-term and control groups were biased in representing only the small percentage of students who took the initiative to answer the online survey.

The demographic profile of the students across groups was another limiting factor. The study involved a population of psychology undergraduate students who were predominantly White females, leaving the generalizability of the findings to more diverse groups questionable. Previous studies have documented positive outcomes of service-learning across a variety of different disciplines such as education, business, and political science (Thompson, 2009; Tucker & McCarthy, 2001; van Assendelft, 2008). Future studies should consider both similarities and differences in how service-learning is conceptualized and experienced across academic courses/majors, geographic locations, and demographic groups.

Finally, it is possible that the inclusion of qualitative data regarding students' perceptions of the service-learning experience would have benefited the study. Previous qualitative research has provided rich, nuanced descriptions of student's feelings of becoming more confident in their abilities and engaged in civic issues as the result of a service experience (Giles, 2010). Adding interviews or focus groups with students in the current study may have complemented the quantitative findings by illuminating possible reasons for the lack of change seen

in survey responses over time, or highlighting other types of change not considered here.

Conclusions and Future Directions

Brandenberger (2005) writes, “Recent pedagogical developments emphasizing service and civic engagement provide enhanced means to foster moral learning. Yet amid increasing calls for character development and engaged pedagogies, essential theory building and formative research are too often missing in action” (p. 305). While the interdisciplinary nature of service-learning scholarship promotes a range of perspectives which can be viewed as beneficial, a scattered literature also poses challenges for deepening the research base. The current study built off of educational, psychological, and human developmental theory (Kolb, 1984; Brandenberger, 1998; Bringle & Velo, 1998; Bandura, 1997) in predicting changes in service-learning students. However, more comprehensive models which delineate the process of attitudinal and behavioral change as a result of service-learning are needed to advance the field. Such models should guide the further development of measures which are sensitive to change even in students who may already be highly committed, eager, and competent prior to service participation, as well as for those who are required to participate in service-learning. Results from theory-based assessment can then be used to make the important connection between research and practice (Diemer, Voight, & Mark, 2011).

In addition to the further development of theoretical models, enhanced study design will continue to benefit the service-learning field. While

both quantitative and qualitative studies have documented positive outcomes for students, few have incorporated both methodologies. Mixed-methods studies will allow for clearer interpretation of students' experience (Payne, 2000). Further, including a variety of courses is important in moving beyond case studies and increasing generalizability. Additionally, including detailed assessment of faculty and site supervisors' perspectives will enrich the perspective beyond the individual student. Finally, further longitudinal studies incorporating two or more assessment points are important in determining trajectories of change. It has been suggested that "hopes that the majority of [service-learning] students will continue to find service placements during their college career, and later become active citizens in their communities, may be overestimated" (Harris, 2010). Challenges in follow-up after students have left class need to be addressed in order to assess both short-term and lifelong impact of service-learning experiences.

Service-learning research has made progress in assessing the benefits of participation for student development. However, the current study suggests that not all students may experience these benefits, and/or that the benefits are difficult to quantify. While this study included a control group which is lacking in much of the service-learning research, findings did not demonstrate positive changes for service-learning participants as compared to controls. Students' self-selection as well as the variety in their coursework and service experiences could have influenced the results. In order to decrease variability, an important area for future research is the random assignment of students taking the same course to a service

condition versus a project which does not involve community work. This would enable greater isolation of the effects of the service experience (Billig, 2003).

Robust research design should also include an emphasis on identifying which students benefit most from service-learning experiences. Students' values, as shaped by the values of their family, peers, community, or religion may impact how they approach and experience service. Developmental concerns, such as relative openness to change in high school students, college freshmen, and more advanced students may also be relevant. Comparisons of students in different majors, rural versus urban campuses, or higher education settings with and without explicit service missions may reveal information about how and where resources might be best allocated. Further, the experiences of students who voluntarily participate in service-learning versus those who are fulfilling a requirement should be assessed. Relevant outcomes for different groups of students should be considered. For example, perhaps the long-term practical benefits of future employment or graduate school opportunities resulting from service experience are more apparent than attitudinal changes for students who enter service-learning with already high levels of civic-mindedness or self-efficacy.

Beyond individual characteristics, students' experiences inside and outside the classroom should be further explored. This study aimed to examine the effects of different intensities of service experience. The lack of significant results suggests a need for further investigation of the effects of service "dose" (e.g., hours per week spent at service site; quarter or semester-long course versus a year

or more) in order to promote efficient allocation of resources. Future studies might also examine additional elements of the service experience which could influence student outcomes, such as quantity/quality of supervision or type of service performed. The classroom component of service-learning should also be more closely assessed in an effort to inform curriculum planning. For example, it is important to understand more about how specific goals for civic and personal development are articulated by instructors, and whether this is reflected in outcomes. As service-learning research continues to expand, the identification of specific factors which impact student outcomes should be central in order to better understand mechanisms of change and inform program development.

Given the substantial investment of time, effort and financial resources to promote service-learning in both high school and higher education settings, continued examination of its outcomes is warranted. The field of psychology is uniquely positioned to develop theory and research related to the impact of service-learning experiences on social-emotional development, and community psychologists specifically have an interest in young people's community engagement and commitment to social justice issues. As contributions from psychology studies intersect with the inherently interdisciplinary nature of the service-learning field, it is hoped that research can continue to set the stage for curriculum development which is most beneficial to all involved.

CHAPTER V

SUMMARY

The purpose of the present study was to examine the relationship of service-learning participation with civic attitudes and self-efficacy. Positive outcomes in these areas as a result of service-learning have been indicated by previous research, but this study aimed to respond to the continued need for longitudinal assessment of multiple comparison groups using validated measures. A total of 398 undergraduate college students participated by filling out questionnaires in class and online. Participants were drawn from three groups in order to compare experiences: a year-long intensive service-learning course, short-term (ten weeks) service-learning courses, and a control group of students not currently involved in service-learning. Questionnaires were completed at three time points over the course of a year: the beginning of the course, at the end of ten weeks, and the end of the academic year.

Analysis of covariance (ANCOVA) was utilized to compare the three groups of students on six aspects of civic development (civic action, interpersonal/problem-solving skills, political awareness, leadership skills, social justice attitudes, and diversity attitudes) and three types of self-efficacy (general, social, and community service self-efficacy). At each time point, it was expected that intensive service-learning students would score higher in civic attitudes and self-efficacy than short-term service-learning students, who in turn would have higher scores than students not in service-learning. Results did not support this hypothesis, and the study was also unable to demonstrate increases in civic

attitudes and self-efficacy over time for service-learning students as compared to the control group using repeated measures analysis. When control variables of gender, volunteer community service participation during college, and social desirability responding were removed from the analyses, there remained a similar lack of significant differences among groups. Stepwise regression analyses were also used to explore the research question of whether students' course expectations/evaluations, engagement in reflection, or site performance as rated by supervisors was predictive of civic development and self-efficacy outcomes. Results found that supervisor ratings were not predictive of any student outcomes. While students' expectations and later evaluations of their learning, as well as their perceptions of the importance of reflection activities, demonstrated some associations with outcomes, a consistent pattern did not emerge.

This study was limited by self-selection of participants into each of the groups, as well as attrition at the end of the school year. Additionally, the selection of advanced psychology students at a service-oriented university may have contributed to overall greater civic-mindedness and self-efficacy at the outset, making both cross-sectional differences among groups and any longitudinal changes more difficult to discern. Given the increasing interest in service-learning in higher education settings, results suggest a need for continued examination of both immediate and long-term student outcomes. Future research should focus on differentiating the effects of course structure and site variables for various groups of students using adequately sensitive measures rooted in theory. Ideally, such measures can be utilized in mixed-methods designs with randomized

groups in order to strengthen research design across disciplines. Findings from continued service-learning research should provide a basis for both curriculum development and the allocation of resources to promote positive student outcomes.

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Appendix A

Student Information Sheet

INFORMATION SHEET FOR PARTICIPATION IN RESEARCH STUDY
Understanding the Perspectives of Students in Psychology Courses

PROCEDURES

You are being asked to participate in a research study being conducted by Rachel Gershenson, M.A., a graduate student at DePaul University as a requirement to obtain her doctoral degree. This research is being supervised by her faculty advisor, Dr. Sheldon Cotler. We are asking you to be in a research study because we are trying to learn more about students in psychology courses. This study will take about 30 minutes of your time.

If you agree to be in this study, you will be asked to fill out a questionnaire. If you are in a year-long course you will be asked to complete a questionnaire once in the first week, once in the last week of first quarter, and once at the end of the course. If you are in a quarter-long course, you will be asked to complete a questionnaire in the first and last week of the quarter, and will be contacted by email at the end of the academic year to ask you to complete a third questionnaire in an online format. The questionnaire will ask about your participation in community service and service-learning, your feelings about the course in which you are taking the questionnaire, and your personal beliefs and traits. We will also ask for some information about you such as gender, age, ethnicity, and year in school. You can choose not to take any of the questionnaires, and are welcome to work on another activity as an alternative to participating. There will be no negative consequences if you decide not to participate or change your mind later. If you are in a service-learning course, we will also send your supervisor at your service site a brief, confidential questionnaire asking about their experience working with you.

CONFIDENTIALITY

Immediately following completion of the survey, your responses will be de-identified by removing your name from the questionnaire and replacing it with a random number code. Questionnaires and the list connecting names with codes will be kept separately in private locked files in Dr. Sheldon Cotler's office. Your responses to the questionnaire will be kept private and stored in locked files in Rachel Gershenson's office. Only researchers will have access to these files. Any presentations or published reports resulting from this study will present questionnaire data in group form, and information that may identify you will not be included.

If you have questions about this study, please contact Rachel Gershenson at 206-427-3388 or rgershe1@depaul.edu. If you have questions about your rights as a research subject, you may contact Susan Loess-Perez, DePaul University's Director of Research Protections at 312-362-7593 or by email at sloesspe@depaul.edu.

I, _____, verify that I have read this information sheet and agree to participate in this study.

Signature

Date

You will be given a copy of this information for your records.

Appendix B

Supervisor Information Sheet

INFORMATION SHEET FOR PARTICIPATION IN RESEARCH STUDY**Understanding the Perspectives of Students in Psychology Courses***PROCEDURES*

You are being asked to participate in a research study being conducted by Rachel Gershenson, M.A., a graduate student at DePaul University as a requirement to obtain her doctoral degree. This research is being supervised by her faculty advisor, Dr. Sheldon Cotler. We are asking you to be in a research study because we are trying to learn more about supervisors' impressions of students in service-learning courses.

If you agree to be in this study, you will be asked to fill out a questionnaire. The questionnaire will ask about your experiences working with a service-learning student(s) from DePaul University. We will also ask for some information about you such as gender, age, and ethnicity. You can choose not to take any of the questionnaires, and there will be no negative consequences for you or the student if you decide not to participate or change your mind later.

CONFIDENTIALITY

When your survey is received, your responses will be de-identified by removing your name from the questionnaire and replacing it with a random number code. Questionnaires and the list connecting names with codes will be kept separately in private locked files in Dr. Sheldon Cotler's office. Your responses to the questionnaire will be kept private and stored in locked files in Rachel Gershenson's office. Only researchers will have access to these files. Any presentations or published reports resulting from this study will present questionnaire data in group form, and information that may identify you will not be included.

If you have questions about this study, please contact Rachel Gershenson at 206-427-3388 or rgershel@depaul.edu. If you have questions about your rights as a research subject, you may contact Susan Loess-Perez, DePaul University's Director of Research Protections at 312-362-7593 or by email at sloesspe@depaul.edu.

I, _____, verify that I have read this information sheet and agree to participate in this study.

(print name)

Signature

Date

You will be given a copy of this information for your records.

Appendix C

Demographic and Background Information – Time 1 Pretest (First Week of Course)

1. **Name:** _____
2. **Gender:** _____ 3. **Age:** _____ 4. **Ethnicity:** _____
5. **Year in school** (circle one): Freshman Sophomore Junior Senior
6. **Including any current service-learning course(s) you are taking, how many courses have you had in college where you participated in community service to meet some of the course requirements?** None One Two Three Four or more

**The following questions refer to your volunteer community service participation (not connected to a class).*

- 7a. **On average, how often did you participate in community service during high school?** (Check one. If *never*, go to question #8a).

Never
 Seldom (a few times per year)
 Sometimes (once a month)
 Often (2-3 times a month)
 Always (each week)

- 7b. **What types of service activities did you do during high school?** (Check all that apply).

Direct involvement with same person/group (e.g., tutor, coach, visit)
 Direct involvement with different people needing service (e.g., assist at shelter)
 Assist agency (e.g., clerical work or physical labor)
 Special project for group (e.g., written brochure or fundraiser)
 Supervise other volunteers, organize program
 Other (please describe: _____)

- 8a. **On average, how often have you participated in community service during college?** (Check one. If *never*, go to next page).

Never
 Seldom (1-2 times per quarter)
 Sometimes (once a month)
 Often (2-3 times a month)
 Always (each week)

- 8b. **What types of service activities have you done during college?** (Check all that apply).

Direct involvement with same person/group (e.g., tutor, coach, visit)
 Direct involvement with different people needing service (e.g., assist at shelter)
 Assist agency (e.g., clerical work or physical labor)
 Special project for group (e.g., written brochure or fundraiser)
 Supervise other volunteers, organize program
 University-sponsored service project over school break
 Other (please describe: _____)

9. **Are you currently doing any community service that is not required for a course?**

(Check one) Yes No

Demographic and Background Information – Time 2 Posttest (Last Week of Course)

1. **Name:** _____
2. **What is the TOTAL number of hours of service you performed at your site?** _____
3. **With whom did you *primarily* work (provide service to)?**
 Children Teens Adults Peers Agency Staff
4. **Please estimate the number of *hours per week* you spent doing each of the following activities at your service site. If you did not do a particular activity, leave it blank.**
 Direct involvement with people receiving service (e.g., tutor, coach, lead group)
 Special project for agency (e.g., brochure or fundraiser)
 Indirect service (e.g., clerical/secretarial work, physical labor, transport)
 Supervise other volunteers/manage program
 Create/plan/organize new program
 Other (Please specify: _____)
5. **How often did your service project involve working with people with backgrounds different than your own (i.e., different socioeconomic status, ethnicity, etc.)? (Check one)**
 Always
 Frequently
 About half the time
 Occasionally
 Never
6. **How often did you meet with a supervisor at your service site? (Check one)**
 More than once a week
 About once a week
 About once every two weeks
 Once a month
 Less than once a month
7. **How satisfied were you with the supervision at your site? (Check one)**
 Very satisfied
 Somewhat satisfied
 Neutral
 Somewhat dissatisfied
 Very dissatisfied
8. **Please indicate how important the following forms of reflection were to your learning experience in this course on a scale from 1 (Very Important) to 5 (Very Unimportant)**
- | Activity | Very Important | Somewhat Important | Neutral | Somewhat Unimportant | Very Unimportant |
|--|----------------|--------------------|---------|----------------------|------------------|
| Journaling | 1 | 2 | 3 | 4 | 5 |
| Other written assignments | 1 | 2 | 3 | 4 | 5 |
| Class discussions | 1 | 2 | 3 | 4 | 5 |
| Informal sharing of experiences outside of class | 1 | 2 | 3 | 4 | 5 |
9. **Are you currently doing any community service that is not required for a course? (Check one)** _____ Yes _____ No

Appendix D
Course Expectations / Evaluation*

General Expectations for Course					
Instructions: Please rate the items below from 1 (Strongly Disagree) to 5 (Strongly Agree) as they relate to your expectations for the course in which you are taking this questionnaire.					
<i>Through the course I am taking...</i>	Strongly Disagree (SD)	Moderately Disagree (D)	Neither Agree nor Disagree (N)	Moderately Agree (A)	Strongly Agree (SA)
1. I will gain a deeper understanding of the topic area of this course.	SD	D	N	A	SA
2. I will learn to apply concepts from my course to real situations.	SD	D	N	A	SA
3. I will become more interested in the field represented by this course.	SD	D	N	A	SA
4. I will better understand the role of a professional in this field.	SD	D	N	A	SA
5. I will become more interested in a career in community work.	SD	D	N	A	SA
6. I will learn about the community.	SD	D	N	A	SA
7. I will learn how to work with others effectively.	SD	D	N	A	SA
8. I will learn to appreciate different cultures.	SD	D	N	A	SA
9. I will learn to see social problems in a new way.	SD	D	N	A	SA
10. I will become more aware of the community of which I am a part.	SD	D	N	A	SA

Expectations for Service-Learning

Instructions: Please rate the items below from 1 (Strongly Disagree) to 5 (Strongly Agree) as they relate to your expectations for your service-learning experience in this course.

Statement	Strongly Disagree (SD)	Moderately Disagree (D)	Neither Agree nor Disagree (N)	Moderately Agree (A)	Strongly Agree (SA)
11. In my service-learning experience, I expect to be appreciated when I do a good job.	SD	D	N	A	SA
12. I expect that I will make a real contribution through my service-learning activity.	SD	D	N	A	SA
13. In service-learning, I expect that I will be free to develop and use my ideas.	SD	D	N	A	SA
14. I expect my service-learning activity to meet the needs of the community.	SD	D	N	A	SA

*Items for these scales changed to past tense at posttest (e.g., I *became* more aware of the community of which I am a part).

Appendix E

Civic Attitudes and Skills Questionnaire (CASQ)

Instructions: Listed below are a number of opinion statements. You will agree with some, disagree with some and have no opinion about others. Please use the scale to indicate your degree of agreement with each item.					
Statement	Strongly Disagree (SD)	Somewhat Disagree (D)	Neither Agree nor Disagree (N)	Somewhat Agree (A)	Strongly Agree (SA)
1. In the future, I plan to participate in a community service organization.	SD	D	N	A	SA
2. Individuals are responsible for their own misfortunes.	SD	D	N	A	SA
3. When trying to understand the position of others, I try to place myself in their position.	SD	D	N	A	SA
4. I plan to become involved in my community.	SD	D	N	A	SA
5. I can communicate well with others.	SD	D	N	A	SA
6. It is hard for a group to function effectively when the people involved come from very diverse backgrounds.	SD	D	N	A	SA
7. I feel that I can make a difference in the world.	SD	D	N	A	SA
8. I am knowledgeable of the issues facing the world.	SD	D	N	A	SA
9. We need to institute reforms within the current system to change our communities.	SD	D	N	A	SA
10. I plan to help others who are in difficulty.	SD	D	N	A	SA
11. I try to place myself in the place of others in trying to assess their current situation.	SD	D	N	A	SA
12. Cultural diversity within a group makes the group more interesting and effective.	SD	D	N	A	SA

Statement	Strongly Disagree (SD)	Somewhat Disagree (D)	Neither Agree nor Disagree (N)	Somewhat Agree (A)	Strongly Agree (SA)
13. I tend to solve problems by talking them out.	SD	D	N	A	SA
14. I am a better follower than a leader.	SD	D	N	A	SA
15. I can listen to other people's opinions.	SD	D	N	A	SA
16. We need to look no further than the individual in assessing his/her problems.	SD	D	N	A	SA
17. I can work cooperatively with a group of people.	SD	D	N	A	SA
18. I enjoy meeting people who come from backgrounds very different from my own.	SD	D	N	A	SA
19. I plan to do some volunteer work.	SD	D	N	A	SA
20. I can easily get along with people.	SD	D	N	A	SA
21. We need to change people's attitudes in order to solve social problems.	SD	D	N	A	SA
22. I am a good leader.	SD	D	N	A	SA
23. I find it easy to make friends.	SD	D	N	A	SA
24. I am aware of the events happening in my local community.	SD	D	N	A	SA
25. I can think logically in solving problems.	SD	D	N	A	SA
26. In order for problems to be solved, we need to change public policy.	SD	D	N	A	SA
27. I understand the issues facing this nation.	SD	D	N	A	SA
28. I plan to become involved in programs to help clean up the environment.	SD	D	N	A	SA

Statement	Strongly Disagree (SD)	Somewhat Disagree (D)	Neither Agree nor Disagree (N)	Somewhat Agree (A)	Strongly Agree (SA)
29. I am aware of current events.	SD	D	N	A	SA
30. I plan to become an active member of my community.	SD	D	N	A	SA
31. People are poor because they choose to be poor.	SD	D	N	A	SA
32. I find it difficult to relate to people from a different race or culture.	SD	D	N	A	SA
33. I am committed to making a positive difference.	SD	D	N	A	SA
34. I don't understand why some people are poor when there are boundless opportunities available to them.	SD	D	N	A	SA
35. I try to find effective ways of solving problems.	SD	D	N	A	SA
36. I understand the issues facing my city's community.	SD	D	N	A	SA
37. I would rather have somebody else take the lead in formulating a solution.	SD	D	N	A	SA
38. I can think analytically in solving problems.	SD	D	N	A	SA
39. I plan to participate in a community action program.	SD	D	N	A	SA
40. I prefer the company of people who are very similar to me in background and expressions.	SD	D	N	A	SA
41. I have the ability to lead a group of people.	SD	D	N	A	SA
42. It is important that equal opportunity be available to all people.	SD	D	N	A	SA
43. I plan to be involved in the political process.	SD	D	N	A	SA

Statement	Strongly Disagree (SD)	Somewhat Disagree (D)	Neither Agree nor Disagree (N)	Somewhat Agree (A)	Strongly Agree (SA)
44. I can successfully resolve conflicts with others.	SD	D	N	A	SA

Appendix F

Self-Efficacy Scale (SES)

Instructions: Listed below are a series of statements about your personal attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement by circling the response that best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

Statement	Strongly Disagree (SD)	Moderately Disagree (D)	Neither Agree nor Disagree (N)	Moderately Agree (A)	Strongly Agree (SA)
1. I like to grow house plants.	SD	D	N	A	SA
2. When I make plans, I am certain I can make them work.	SD	D	N	A	SA
3. One of my problems is that I cannot get down to work when I should.	SD	D	N	A	SA
4. If I can't do a job the first time, I keep trying until I can.	SD	D	N	A	SA
5. Heredity plays the major role in determining one's personality.	SD	D	N	A	SA
6. It is difficult for me to make new friends.	SD	D	N	A	SA
7. When I set important goals for myself, I rarely achieve them.	SD	D	N	A	SA
8. I give up on things before completing them.	SD	D	N	A	SA
9. I like to cook.	SD	D	N	A	SA
10. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.	SD	D	N	A	SA
11. I avoid facing difficulties.	SD	D	N	A	SA
12. If something looks too complicated, I will not even bother to try it.	SD	D	N	A	SA

Statement	Strongly Disagree (SD)	Moderately Disagree (D)	Neither Agree nor Disagree (N)	Moderately Agree (A)	Strongly Agree (SA)
13. There is some good in everybody.	SD	D	N	A	SA
14. If I meet someone interesting who is very hard to make friends with, I'll soon stop trying to make friends with that person.	SD	D	N	A	SA
15. When I have something unpleasant to do, I stick to it until I finish it.	SD	D	N	A	SA
16. When I decide to do something, I go right to work on it.	SD	D	N	A	SA
17. I like science.	SD	D	N	A	SA
18. When trying to learn something new, I soon give up if I am not initially successful.	SD	D	N	A	SA
19. When I'm trying to become friends with someone who seems uninterested at first, I don't give up very easily.	SD	D	N	A	SA
20. When unexpected problems occur, I don't handle them well.	SD	D	N	A	SA
21. If I were an artist, I would like to draw children.	SD	D	N	A	SA
22. I avoid trying to learn new things when they look too difficult for me.	SD	D	N	A	SA
23. Failure just makes me try harder.	SD	D	N	A	SA
24. I do not handle myself well in social gatherings.	SD	D	N	A	SA
25. I very much like to ride horses.	SD	D	N	A	SA
26. I feel insecure about my ability to do things.	SD	D	N	A	SA
27. I am a self-reliant person.	SD	D	N	A	SA

Statement	Strongly Disagree (SD)	Moderately Disagree (D)	Neither Agree nor Disagree (N)	Moderately Agree (A)	Strongly Agree (SA)
28. I have acquired my friends through my personal abilities at making friends.	SD	D	N	A	SA
29. I give up easily.	SD	D	N	A	SA
30. I do not seem capable of dealing with most problems that come up in my life.	SD	D	N	A	SA

Appendix H

Social Desirability Responding

Instructions: Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is True or False as it pertains to you personally.

Statement	True (T)	False (F)
1. I'm always willing to admit it when I make a mistake.	T	F
2. I always try to practice what I preach.	T	F
3. I never resent being asked to return a favor.	T	F
4. I have never been annoyed when people expressed ideas very different from my own.	T	F
5. I have never deliberately said something that hurt someone's feelings.	T	F
6. I like to gossip at times.	T	F
7. There have been occasions when I took advantage of someone.	T	F
8. I sometimes try to get even rather than forgive and forget.	T	F
9. At times I have really insisted on having things my own way.	T	F
10. There have been occasions when I felt like smashing things.	T	F

