ABSTRACT

Title of thesis: SERVICE-LEARNING AND DIVERSITY: THE RELATIONSHIP OF RACE, GENDER, AND PRIOR SERVICE EXPERIENCE TO STUDENTS’ SELF-PERCEIVED APPRECIATION OF DIFFERENCE AND AWARENESS OF STRUCTURAL INEQUALITY

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This thesis explored the relationship between students’ participation in a one-semester service-learning course and their self-perceptions of diversity, defined as appreciation of difference and awareness of structural inequality (O’Grady, 2000). Specifically, the study explicated the relationship between each of the two diversity components and race, gender, service hours required, and prior service participation. The study utilized existing data from the Curricular Service Learning Survey, a locally developed instrument.

Results indicated that women’s perceptions of appreciation of difference were significantly greater than men’s perceptions, whereas students’ perceptions of awareness of structural inequality differed significantly by race and gender. Blocked hierarchical regressions revealed that students’ prior service experience and high school service requirement predicted a significant but small amount of the variance (6%) in their
perceptions of their appreciation of difference and that prior service experience predicted a significant amount of the variance (6%) in their awareness of structural inequality.
SERVICE-LEARNING AND DIVERSITY: THE RELATIONSHIP OF RACE, GENDER, AND PRIOR SERVICE EXPERIENCE TO STUDENTS’ SELF-PERCEIVED APPRECIATION OF DIFFERENCE AND AWARENESS OF STRUCTURAL INEQUALITY

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CHAPTER 1: INTRODUCTION

The purpose of this chapter is to provide a rationale and framework for the current study. First, the research problem regarding service-learning and diversity is presented. Then, background information for service-learning and diversity is presented. Following is a discussion of the unique intersection of the constructs. Finally, the purpose of the study, definition of terms, and significance of this research are outlined.

Research Problem

According to Campus Compact (2003), a nation-wide organization that promotes community service in higher education, unprecedented numbers of college and university students participate in some form of community service before they graduate. In fact, in their survey of 504 institutions of higher education, Campus Compact found that an average of 33% of college students engaged in some form of community service. This participation may occur through programs, such as those sponsored by student organizations or religious groups, or it may take place in more formal situations, like academic courses. The latter of these, referred to as service-learning, involves a student’s completion of a necessary service to the community, while integrating that service with the pursuit of an academic subject (Weigert, 1998). Although much praise has been awarded to the enriching opportunities that service-learning provides to students, the threat remains that they will leave the experience with reinforced stereotypes and assumptions across difference (Jones, 2002). That is, students may gain a shallow understanding of well-doing, while overlooking diversity, the essential factor that allows an individual to appreciate multiple perspectives and critically examine social issues and
structural inequalities (O’Grady, 2000). Given such concerns, this study seeks to address the connections that exist between service-learning and diversity.

Background

Service-learning

Understanding what constitutes service-learning begins with asking the basic question “how is service-learning different from community service?” Falling under the broader umbrella of community service, service-learning is a facet of community service that is a holistic, student-centered pedagogy aimed at creating an engaged and participatory environment rooted in dialogue and collaboration (Eyler & Giles, 1999; Guarasci, 1997; Howard, 1998; Musil, 2003). It is an integration of service within a community, intentionally designed experiential components (i.e., critical reflection) and classroom application that, when combined, create a synergy (Couto, 1996; Howard, 1998; Jacoby, 1996). The loss or overemphasis of any one of these pieces can lead to a shallow form of learning; however, any program attempting to link service with academic study may be included within the broad category of service-learning (Eyler & Giles, 1999). The best service-learning experiences are those in which students and community members are engaged in a reciprocal relationship that allows both constituents to learn from and teach one another (Jacoby, 1996; Mintz & Hesser, 1996). In these situations, students are immersed in and work with, rather than for, the community (Neururer & Rhoads, 1998). Furthermore, in productive service-learning experiences, the community is not treated as a learning laboratory, but as an entity knowledgeable in the needs of its members.
Although all of these components are essential to service-learning, the pedagogy can be conceptualized in a variety of ways. According to Sigmon (1994), there are four types of service-learning with varying levels of emphasis on service and learning respectively. The first, “service-LEARNING,” is a learning-centered paradigm in which service is of secondary concern. “SERVICE-learning,” the second type, is focused primarily on service, with learning as a less central outcome. The third kind, “service learning,” is equally concerned with both service and learning; however, each is considered separately. The final type, “SERVICE-LEARNING,” with which this study is concerned, places an equal weight on both service and learning and allows students to take their knowledge from courses and apply it within the context of their service sites (Marullo, 1998). Taken from this perspective, service-learning poses a challenge to institutions and organizations to rethink what constitutes legitimate forms of education, placing value on experience and learning that occurs outside the classroom (Kezar & Rhoads, 2001). It allows students to connect their cognitive, psychosocial, and identity development in a way that colleges and universities have traditionally left disconnected (Eyler & Giles, 1999). Although Sigmon’s descriptions have not been operationally defined for the purpose of research, his definitions provide a useful guide in better understanding service-learning pedagogy.

Morton (1995) argued that there are three distinct paradigms of service that, although not mutually exclusive, can be separated relatively easily: charity, project development, and social change. Distinct from a more traditional view of a continuum of service, this conception suggests that no one form of service is better than another (Morton). Instead, each type is useful in its own right and offers an array of outcomes.
The first of these types, charity, is described as the direct provision of a service to an individual or group. Those that participate in charity generally retain control of the service being performed (Morton, 1995). Thus, the community has only a minimal voice in the decision-making process, leading to a deficit-based view of the environment. Although a charity paradigm of service is likely to be most useful to a community suffering a natural disaster or human-related catastrophe, the framework may result in worsening a situation by reinforcing the idea that benevolence can “fix” social problems like hunger and homelessness (Morton).

The project model of service, the second that Morton (1995) proposed, is problem-focused and solution-oriented. Project forms of service require collaboration across a community, such as a college department partnering with a local bookstore and a public school to provide books for children; however, this form of service calls for the partnership of resource-rich groups in aiding resource-poor communities (Morton). As a result, deeper questions about why a school does not have resources may be ignored as the more privileged community partners take on a paternalistic attitude towards those they serve, creating a level of dependency.

The final paradigm Morton (1995) suggested, social change, is a transformational form of service in which partnerships are built as students and community members collaborate to examine the systemic causes of injustice and work to effect positive change. Seen in this light, effective service is a partnership between two groups that grow together and strengthen one another as they move towards a reciprocal relationship (Howard, 1998; Morton). An example of such a partnership might be the collaboration of a university and a community-based fair housing organization that works with students to
study gentrification in the area. Service for social change involves the provision of meaningful work on the part of the student through which a deeper level of learning is achieved (Weigert, 1998). In this way, students are able to connect their classroom learning as they work towards solving community problems in innovative ways that call into question the validity of their perceptions of the problem (Eyler & Giles, 1999). This final type of service is the most effective with which to pair a service-learning pedagogy.

**Diversity**

Like service-learning, defining diversity is a complex task that requires a multifaceted answer. Different terms, such as multiculturalism or social justice education, may be used in reference to diversity but each term has a unique definition. Many include only racial differences in their frame of reference, while others are more inclusive, acknowledging various aspects of difference, including race, ethnicity, social class, age, gender, sexual orientation, and ability, to name a few (Banks, 2001; Ogbu, 2001; Rhoads, 1998). However, broadly defined, diversity includes interactions with diverse individuals and ideas in a way that allows a person to think critically about new viewpoints and to examine social issues and structures (O’Grady, 2000).

College and university campuses serve as dynamic environments in which to learn about and experience diversity (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999). Institutions of higher education bring together individuals with a wide array of identities, experiences, and cultures, in a compact vicinity that provides a rich setting for increased levels of interaction. The diversity of these institutions and their community members is particularly essential for contributing to students’ learning and development, as it is during the college years that individuals tend to display the greatest level of openness to
social and political attitudes (Hurtado et al. 1998, 1999). In fact, this may be the only
time that individuals encounter and interact with people different from themselves, as
they likely have come to higher education with very limited exposure to difference
(Hurtado et al.; Jones & Abes, 2003). Furthermore, students are at a critical
developmental point at which diversity may “facilitate greater awareness of the learning
process, better critical thinking skills, and better preparation for the many challenges they
will face as involved citizens in a democratic, multiracial society” (Milem, 2003, p. 134).
The college years are a time of continued development that, when paired with diverse
people and opportunities for unique experiences, may produce substantial outcomes.

In the same year, Milem (2003) and Milem and Umbach (2003) argued that
diversity exists in three dimensions in colleges and universities: structural, diversity-
related initiatives, and diverse interactions. Although these forms are not mutually
exclusive, each is distinct from the others and may be enhanced in combination with one
of the other two (Milem). The first form, structural diversity, refers to the numerical
representation of various groups on a given campus (Hurtado et al., 1998, 1999). In other
words, it accounts for the number of diverse individuals at an institution. Diversity-
related initiatives, which frequently build upon structural diversity, include the range of
programs or courses that an institution offers. Although colleges and universities vary in
the level of diversity found on campus, many institutions create programs around issues
of diversity, perhaps despite a relatively homogenous student population (Milem). The
last dimension, diverse interactions, involves contact across difference, along with
engagement with a wide array of ideas, information, and experiences (Milem). It is
through these encounters that students begin to understand differences in identity
characteristics as they are exposed, sometimes for the first time, to differences in people along many different social dimensions (LeSourd, 1997; Marullo, 1998).

Milem (2003) asserted that these experiences across difference not only aid students in understanding people unlike themselves but that there are four types of benefits resulting from diversity in institutions of higher education. This value-added perspective, in which there is something to gain from diversity, impacts (a) individual students, (b) higher education institutions, (c) the economy and private enterprise, and (d) the greater society (Milem). Individually, research has evidenced that “diversity enhances student growth and development in the cognitive, affective, and interpersonal domains” (Milem, p. 131). These interactions appear to qualitatively enhance student learning.

Moreover, diversity also influences the institutions in which students are enrolled. In fact, studies have shown that women faculty and faculty of color are likely to contribute to the research, teaching, and service missions of institutions in ways that are less typical of White, male faculty members (Milem, 1999). Recognizing the value of diverse individuals and ways of thinking, it is also likely that a broader definition of diversity, including sexual orientation, ability, social class, religion, and other social identities, would further contribute to the educational value of difference within higher education.

In addition to the individual and institutional contributions of diversity, the benefits to the economy and private sector, along with society, are also important to consider. Research done by private businesses indicates that increasing emphasis on a global market has required business persons to become cross-culturally competent and skilled in working in diverse environments (Milem, 2003). Work environments that include such people tend to be more flexible and economically viable, contributing to
more successful businesses. Further, individuals who have gained the skills to interact with people different from themselves have been prepared to live within a diverse democracy in a way that fosters more effective citizenship (Gurin, 1999). Such persons more frequently “demonstrate increases in racial understanding, cultural awareness and appreciation, engagement with social and political issues, and openness to diversity and challenge” (Milem, p. 162). With a workforce demanding employees that are highly competent in working effectively across difference, it is essential that higher education institutions aid students in gaining the skills to work in a diverse society (Milem & Umbach, 2003). Considering these benefits cumulatively, it is clear that the educational benefits of diversity are plentiful.

The Intersection of Service-Learning and Diversity

Although service-learning and diversity may appear to occupy very different places within higher education, the intersection of these two concepts occurs in the role of service-learning as an agent of diversity education, that is, education across difference. Service-learning can be a powerful tool for crossing socially constructed borders to interact with diverse individuals and ideas and foster an appreciation of those differences. For example, students who have had the opportunity to socialize with someone different from themselves have been found to be more tolerant of different ideas, accepting of people unlike themselves, and more culturally aware (Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Milem, 1994). Perhaps most importantly, however, is the forum that this pedagogy provides for students and community members to build genuine relationships with people perceived to be different. Through these experiences, individuals quickly discover the similarities that exist between them, challenging students
to think critically about their personal values (Eyler & Giles, 1999; Mintz & Hesser, 1996). In fact, service-learning strives to weave diversity of culture and how individuals approach a task or make meaning of a concept as a central goal (Koulish, 2000). This openness to difference invites students to consider their own uniqueness in relation to the wide array of individuals with whom they interact as they serve, including peers, service agency representatives, and community members.

Although service-learning is an effective tool for educating many students through applied experience and relationship building, Morton (1995) warned of the “unintended consequences” that may result from service-learning experiences. Specifically, neglecting to explore the intersection of social identities, such as race and class, may lead service experiences to reinforce negative stereotypes and the imbalance of power that is the impetus for service (Boyle-Baise & Efiom, 2000; Green, 2001; Jones, 2002). Without intentionally focusing service-learning experiences to equally examine the role of those “serving” and those “being served,” the risk of masking power inequity could be detrimental to the intended outcome of increasing one’s acceptance of individuals across difference (Carrick, Henley, & Jacobi, 2000; Jones & Abes, 2003; Skilton-Sylvester & Erwin, 2000). Furthermore, due to the pervasive nature of these inequalities, it is necessary to be aware that service-learning may not outweigh the systems of oppression that exist in the prevailing culture (Chesler & Scalera, 2000). Therefore, although service-learning can facilitate students’ deepened understanding of diversity in the broadest sense, social inequities caused by racism, sexism, heterosexism, classism, ableism, and other injustices are difficult to overcome.
Despite these potential concerns, service-learning pedagogy has a number of contributions that can be purposefully structured to create a positive educational experience. Mintz and Hesser (1996) suggested that service-learning offers, at its core, three meta-principles involved in working with the community: collaboration, reciprocity, and diversity. Based on the concept of mutuality, collaboration represents an effort to connect with the community through the creation of a dialogical encounter in which all constituents share their needs and seek ways to meet these needs in a productive manner (Neururer & Rhoads, 1998). These partners then work reciprocally, by placing equal weight on each constituent and seeking to create a learning environment that uncovers the source of a problem, leading to social change (Morton, 1995). However, these collaborative and reciprocal relationships cannot progress unless all parties involved are able to acknowledge the truism of inequality based on difference and work at the task of looking through and behind inequity, rather than looking around it (Neururer & Rhoads). For many students, this involves confronting their own identities and stereotypes and recognizing the role they play in systems of oppression (Neururer & Rhoads; Tierney, 1993). Thus, the intersection of service-learning and diversity occurs in the mutual struggle of communities and universities in working for social equality (Jones, 2003a, 2003b).

Purpose of Study

The purpose of this research was to explicate the relationship between service-learning and diversity. Specifically, this study sought to explore the use of service-learning pedagogy as related to diversity using a complex definition that includes students’ self-perceived (a) appreciation of difference and (b) awareness of structural
inequality (O’Grady, 2000). Further, it explored how students varied in their perceptions of what they gained from their service experiences based on within group variables, such as race, gender, number of completed service hours, and prior service experience of students participating in one-semester service-learning courses.

To ascertain whether these variables relate to students’ self-perceived appreciation of difference and awareness of structural inequality, this quantitative study examined previously collected data derived from the Fall 2003 administration of the Curricular Service-Learning Survey at the University of Maryland, College Park. The survey was developed by Portland State University in the early 1990s and modified by the Office of Community Service-Learning (OCSL) to measure if students perceived that course participation influenced their levels of civic engagement, collaborative leadership, and appreciation of diversity as related to their participation in one-semester service-learning courses.

Definition of Terms

Community service refers to the immersion experience in which students work with community members to meet the needs of a community (Neururer & Rhoads, 1998). These experiences frequently occur through student organizations and other campus entities.

Service-learning is defined as a collaborative effort in which students partner with the community to provide a needed service, as identified by the community, while integrating academic coursework in a meaningful and educational way (Weigert, 1998).

Service-learning courses are those academic classes which utilize a service-learning pedagogy, incorporating traditional classroom learning with a community
service component and critical reflection (Eyler & Giles, 1999; Weigert, 1998).

*Diversity* has to do with one’s openness and ability to (a) appreciate multiple perspectives and (b) critically consider social issues and structural inequalities (O’Grady, 2000).

**Significance of the Study**

Results of this study are significant in a number of ways for both theory and practice in student affairs. Specifically, the study will provide a better understanding of the relationship of service-learning to students’ understanding of diversity, an area of research that has been generally neglected thus far. Perhaps even more significantly, this study will inform practitioners of how students perceive their service-learning experience as relating to their appreciation of difference and awareness of structural inequality by demonstrating the relationships between these two dimensions of diversity and demographic characteristics and previous service experience of students participating in service-learning courses. This study provides some insight into the outcomes with which students of various identity groups and experience levels view themselves leaving a service-learning course, helping service-learning practitioners to gain a more thorough understanding of college students and how they may benefit from participation in such a course. Given this information, practitioners may be able to create more meaningful service-learning opportunities in educating students to become citizens in a diverse democracy, a key component to the mission and goals of many colleges and universities.

Further, although service-learning and its relationship to diversity is little understood, the general outcomes of the pedagogy are understood only slightly more. This study is significant in that it explores the service-learning pedagogy with a focus on
diversity, something that past research lacks. With a more complex understanding of the pedagogy, student affairs professionals and faculty members may be able to more intentionally design the curriculum around issues of diversity, inviting dialogue in a way that has previously been overlooked. Thus, the current work of practitioners using service-learning will be enhanced by a deeper understanding of the implications for service-learning pedagogy that this study offers.

Summary

The purpose of this study was to examine students’ perceived appreciation of difference and awareness of structural inequality as related to their participation in a service-learning course at the University of Maryland. It sought to identify the ways in which characteristics of students participating in service-learning relate to students’ self-reported levels of appreciation of difference and awareness of structural inequality in an increasingly diverse society.

The next chapter will provide a theoretical basis for this study, review the literature concerning service-learning and diversity, and examine the intersection of these two constructs.
CHAPTER 2: LITERATURE REVIEW

The purpose of this literature review is to examine research related to service-learning and the use of this pedagogy in fostering students’ appreciation of difference and awareness of structural inequality. Specifically, this chapter will provide a synthesis of the literature related to service-learning and students’ appreciation of difference and awareness of structural inequality after participating in a service-learning course. First, the review will examine Allport’s (1954) Contact Hypothesis before moving on to consider the role of diversity in colleges and universities and how this affects students. Next, the chapter will delve into research on service-learning in conjunction with a discussion of community service and outcomes related to service-learning pedagogy. Throughout, the review will examine the intersections of service-learning and diversity, focusing on the implications of race, gender, number of service hours completed, and prior service participation on students’ appreciation of difference and awareness of structural inequality.

It has been suggested by numerous educators (Hurtado, Milem, Clayton-Pedersen, & Allen, 1998, 1999; Tierney, 1993) that diverse learning environments positively influence students’ college experience. However, it was not until recent years that researchers began to empirically test these assertions (Chang, 1999). Despite the slow pace at which the benefits of diverse environments are being assessed, the reality of an increasingly diverse nation and, as a result, institutions of higher education, cannot be escaped. According to a report by the American Council of Education (Choy, 2002), 30% of students at colleges and universities are racial minorities, 20% were born in a country other than the United States or have a parent that was born outside the U.S., and 11%
spoke a language other than English while they were growing up. With this increasingly diverse population of students in colleges and universities across the country, it is necessary to examine current literature to understand the benefits that a diverse learning environment creates.

Contact with Diverse Individuals

Interaction between people from different social identity groups, or intergroup contact, is an obvious result of the increasing diversity of the United States and U.S. institutions of higher education. As greater and greater numbers of people from differing backgrounds and experiences come together, individuals will be more likely to have contact with a person unlike them. In order to gain a better understanding of how intergroup contact influences students in higher education, this section will examine Allport’s (1954) contact hypothesis.

Contact Hypothesis

Perhaps the most influential theory that can be related to diversity in higher education, Allport’s (1954) contact hypothesis seeks to explain how individuals come to hold prejudiced views and how contact can be used to negate these ideas. Proposed by Williams (1947) and elaborated upon by Allport, the hypothesis argues that there are three important factors that influence whether or not positive intergroup relations will develop: the status of involved individuals, the nature of the activities, and the support of authority figures for successful interactions. Given the appropriate combination of these factors, Allport suggested that prejudice “may be reduced by equal status contact between majority and minority groups in the pursuit of common goals, [that is] sanctioned by institutional support” (p. 281) and is in the common interest of the humanity of these
Multiple researchers have tested Allport’s theory, frequently emphasizing contact between people of color and White people, and have expanded how this theory can be understood and applied (Amir, 1969; Cook & Selltiz, 1955; Levin, van Laar, & Sidanius, 2003; Pettigrew & Tropp, 2000; Robinson & Preston, 1976). Further, they have supported Allport’s notion that intergroup contact in and of itself may not create attitudinal change, but that significant interactions may be required (Allport; Amir; Levin et al.; Pettigrew & Tropp; Robinson & Preston; Schofield, 2001).

**Individual status.** The first aspect of contact that the theory suggests is the necessity for equal status of all concerned parties (Allport, 1954). Defined primarily in terms of the disadvantaged group, Allport outlined four status aspects of contact, which include the minority member holding an inferior, equal, or superior status, and the overall status of the minority group. Allport argued that, without an equal status, the stereotypes held by both minority and majority group members will persist, perhaps reinforcing these negative ideas. Although creating an equal status between minority and majority group members can be difficult to achieve given the inequalities that exist in U.S. society, if members of both groups are peers (e.g., both are students), or if the minority group member holds a higher status (e.g., a faculty or staff member), the two are increasingly likely to experience positive intergroup relations (Jackman & Crane, 1986).

**Nature of interactions.** Not only does the status level of the individuals who are different from one another matter, but the nature of their contact is also important to consider. Schofield (1995) suggested that between group competition may result in stereotyping, devaluing of the other group, and outright hostility. In combination with turbulent histories of intergroup conflict, it is easy to presume that competitive interaction
further perpetuates negative ideas (Schofield). As such, it is important that contact across difference occurs within a cooperative experience that fosters group goals. Furthermore, the interactions must facilitate close individual interactions in which people can build authentic relationships within a positive atmosphere (Jackman & Crane, 1986; Schofield), perhaps like that which one would hope to find in a college classroom.

Included in the nature of interactions are the quantitative and qualitative values of contact. The quantitative aspect is concerned with the frequency and duration of interactions and number of people with whom a person has contact (Milem, 1994). Furthermore, these exchanges must also be qualitatively genuine and important, rather than artificial and trivial, in order for interactions to be meaningful (Allport, 1954). Allport put forth that greater levels of contact with individuals different from oneself will more commonly lead to decreased prejudicial thinking when interactions are intimate and exceptional in nature (Allport).

*Support of authorities.* Finally, Allport (1954) proposed that the support of authority, whether in the form of law, custom, or local atmosphere, is an important aspect of successful intergroup contact. Although large-scale actions, such as court rulings, are important signs of governmental support for diversity, Schofield suggested that of greater import is the role of leaders within one’s immediate sphere of living, such as professors or administrators, in influencing perceptions of others. Important others with whom a person comes into frequent contact, coupled with the support of broader, systemic entities, help to determine the outcome of contact with difference.
Research Regarding the Contact Hypothesis

Since Allport’s initial writing on the Contact Hypothesis, hundreds of studies have been completed in an effort to test his supposition. One such study was completed by Robinson and Preston (1976) to examine attitudinal changes that may result from contact, the persistence of attitude changes, and the difference between contact participants and non-participants after an intentionally designed contact situation. The researchers created an in-service training program on school desegregation for 180 Black and White teachers in a Houston, Texas school district. Prior to and after completion of the eight-hour session, consisting of a number of large and small group activities, teachers completed a battery of five researcher-designed scales to measure racial stereotyping, tension, prejudice, and discrimination. A follow-up study was then conducted in which 350 equal-status teachers from the same Houston school district, 152 of whom were institute participants and 198 who had not participated in the training, were interviewed regarding the problems of school segregation.

Robinson and Preston’s (1976) findings demonstrated a significant difference between those teachers who participated in the in-service training on school desegregation and those who did not, with in-service participants appearing less prejudiced. Controlling for race, the researchers suggested that, even after a 16-month time-lapse, participants’ levels of prejudice were significantly lower than those of teachers who did not participate. These findings support Allport’s (1954) suggestion that interaction of equal-status individuals (e.g., teaching colleagues), within an environment that has been approved of by authorities (e.g., endorsement of the school board) and is
cooperative in nature (e.g., eliminating the problems of school segregation), may counteract negative ideas held about groups of individuals unlike themselves.

More recently, Levin, van Laar, and Sidanius (2003) conducted a longitudinal study of over 1200 students at the University of California, Los Angeles in an attempt to extend Allport’s (1954) theory to settings of higher education. Building upon the suggestions of a small pool of previous research (Amir, 1976; Pettigrew 1998), Levin et al. put forth that Allport’s condition of quality interaction is perhaps more important than previously proposed, arguing that intimate and personal interaction is essential for contact to be beneficial. The diverse group of participants, of whom 32% were White, 36% Asian American, 18% Latino, 6% African American, and 8% of other races and ethnicities, were administered a survey at the beginning of their freshman orientation program. Follow-up data were collected using the Computer-Assisted Telephone Interview system during the spring of each academic year through the students’ fourth year.

Results from Levin, van Laar, and Sidanius’ (2003) study indicated that students’ closest friends were likely to be of their own racial group. Furthermore, it appeared that as the number of an individual’s in-group friends increased, the number of friends unlike that individual decreased. The researchers summarized that, overall, students with larger numbers of friends of a different race or ethnicity reported lower levels of intergroup anxiety. Thus, Levin et al. upheld Allport’s (1954) hypothesis, along with the work of Robinson and Preston (1976), by elaborating on the importance of meaningful relationships in facilitating more positive intergroup relations.

A culmination of the over five decades of research that has been conducted using the Contact Hypothesis, Pettigrew and Tropp (2000) performed a meta-analysis of over
200 studies that met a set of clearly defined criteria. Research included in this analysis ranged from explorations of intergroup interaction based on religion and sexual orientation, to studies based on race and foreign nationals, providing a strong set of preliminary results.

Overall, Pettigrew and Tropp’s (2000) work appears to support previous findings that intergroup contact plays a critical role in reducing prejudice. In fact, 94% of studies included in the research found that contact and prejudice have an inverse relationship. Thus, as a person’s level of contact increases, one’s level of prejudice decreases. These meta-analyses also raised the concern that Allport’s (1954) hypothesis may be somewhat limited due to the possibility of selection bias that occurs when studying intergroup relations. That is, individuals who hold negative ideas about groups unlike themselves may avoid contact with out-group members. Notwithstanding, a number of studies included in Pettigrew and Tropp’s research were longitudinal in nature, providing more convincing results. Further, much of the included research attempted to negate this limitation by severely limiting participants’ choice to take part in intergroup contact, making it impossible for the participant to avoid people unlike themselves. As a result, this study is useful in understanding the Contact Hypothesis within a wider scope, including both the positive aspects and critiques of the theory.

Summary of Contact Hypothesis

In summary, Allport’s (1954) theory explains the importance of individual contact in breaking down stereotypes and negative ideas about people different from oneself. The theory is useful in understanding the value of students’ interactions with diverse others during the college years in producing qualitative changes in students’ attitudes about
difference. Allport’s hypothesis, along with research testing the validity of his work, assists current researchers and practitioners in understanding how diversity may relate to service-learning and will be drawn upon throughout the remainder of this chapter.

Diversity Outcomes

As suggested by Allport’s (1954) theory, exposure to diverse educational environments has been found to contribute to a number of positive college student outcomes. In fact, researchers, theorists, and campus constituents alike assert that diversity in colleges and universities adds to the educational excellence of students’ college experience (Milem, 2003). Given the predominance of such perspectives and the importance of diversity outcomes, such as openness to difference (Antonio, 2001; Astin, 1993), increased sensitivity towards issues of diverse individuals (Globetti, Globetti, Brown, & Smith, 1993), and increased complexity of thought (Milem & Umbach, 2003), this section will provide an overview of diversity outcomes in higher education.

In his study of 677 undergraduates at the University of California, Los Angeles, Antonio (2001) suggested that students who participate in a racially and culturally diverse campus community have higher levels of openness to diversity. Antonio surveyed third-year students at the University of California Los Angeles, a racially diverse institution, who had completed the 1994 Cooperative Institutional Research Program’s (CIRP) annual survey of the entering freshman class. Using a locally developed instrument, the researcher then conducted a follow-up with participants, collecting information about students’ friendship groups in an effort to measure interracial interaction, cultural awareness, and attitudes toward racial dynamics. Finally, Antonio retrieved information
about the individuals whom participants named as friends in order to attain more detailed
demographics about their friendship groups.

According to his findings, Antonio (2001) suggested that close contact with
diverse peers appeared to encourage students to venture outside their circle of friends to
socialize across race. Further, he found that interracial interaction within friendships was
strongly associated with students’ likelihood of discussing issues of diversity and
difference. Antonio discovered that White and African American students had the lowest
levels of racially diverse friendships of all the groups he studied, while Asian American
(i.e., Japanese, Chinese, and Filipino) students had the highest rate of interracial
friendships. Additionally, despite his initial hypotheses, the researcher found that there
were no gender differences in the diversity of students’ friendship groups. Although
Antonio’s study is limited by the inclusion of only one institution in his sample, several
other studies conducted with students on more than one campus yielding similar results
support his conclusions (Astin, 1993; Chang, 1999; Globetti, Globetti, Brown, & Smith,
1993; Hu & Kuh, 2003; MacPhee, Kreutzen, & Fritz, 1994; Milem & Umbach, 2003;
Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). These findings are important, as
they relate to Allport’s contact hypothesis in suggesting that students who interact with
people unlike themselves are likely to become more open to difference than their peers
who interact with homogenous groups. Moreover, the results inform the current study in
examining the racial and gender differences that may exist in perceptions of diversity.

Globetti, Globetti, Brown, and Smith (1993) engaged in a study that examined
students’ perceptions of diversity in a different way from Antonio (2001). Specifically,
the researchers developed a survey instrument that sought to measure multicultural
awareness and sensitivity in terms of students’ views about various groups on campus, attitudes toward issues of diversity, and levels of social interaction with individuals unlike themselves. A sample of 99 African American students, 853 White students, and 24 students of other races (N=976) at a Southern university in the spring of 1990 demonstrated that students who have more social interaction across difference, regardless of race, have significantly greater chances of having thought about issues related to racial, religious, or sexual minorities. Further, Globetti et al. pointed out that, although both African American and White students who interact with people different from themselves are likely to be more aware of diversity issues, levels of sensitivity towards these issues was much higher in African American students. Unfortunately, Globetti et al.’s research is limited in that the sample of students of color was small and there were few students of color who were not African American. Moreover, due to the lack of research utilizing the locally developed instrument employed to collect these data, readers must be tentative in accepting the outcomes of this study. Nonetheless, Globetti et al.’s findings contribute to the current study in further exemplifying the importance of contact in influencing students’ views of difference, despite the racial differences that exist between students of color and White students’ perceptions.

A recent study by Milem and Umbach (2003) cited similar results to those reported by Globetti, Globetti, Brown, and Smith (1993). Milem and Umbach surveyed 2,911 entering first-year students at a university in the Eastern United States, 29% of whom were students of color and 50% of whom were female, at the university’s summer orientation program. The research was part of a national study of 10 public universities and the impact of diversity on the educational outcomes of undergraduate students.
Milem and Umbach articulated that, when students were asked about their intentions to participate in diversity-related activities during college, women more frequently anticipate their involvement than do men. Findings also suggested that there is an interaction between race and gender in terms of participation, with African American women reporting the highest expectations for their involvement in these activities and White men demonstrating the lowest likelihood. Milem and Umbach’s findings further contribute to the mixed results of research on students’ precollege exposure to diversity and their intentions to participate in diversity-related activities. The researchers discovered that students’ precollege experiences in diverse environments impacted their intentions to get involved in diversity-related activities; however, they were not a statistically significant influence. These results are important to the current study, as Milem and Umbach’s work supports Allport’s (1954) notion of the importance of contact across difference and provides a greater understanding of the role of gender and precollege factors in students’ openness to diversity.

In addition to students’ increased openness to diversity, experiences with people unlike oneself have also been suggested to enhance students’ ability to engage in more complex forms of thinking. Astin’s (1993) longitudinal study, which included over 24,800 college students who completed the CIRP survey as entering freshmen in 1985 and a follow-up questionnaire in the spring of 1989 and winter of 1990, found that participation in conversations or activities related to race led to students’ increased openness to diversity. Astin further purported that there was a positive correlation between the number of hours students spent studying and their level of openness to diversity. Milem (2003) supported this proposition, noting that interactions with
individuals from diverse backgrounds contribute to students’ ability to think actively and critically, that is, with increased logic and examination skills. Although one must accept Astin’s suggestion with some hesitancy, as there has been a limited number of studies exploring this topic, his work points out the relationship between academic achievement and students’ experiences with a wide array of diverse individuals. Furthermore, this work supports the view that intergroup contact is beneficial to students in higher education.

Not only does a college or university’s structural diversity contribute to the intellectual components of learning, but institutions that have a multicultural student body are likely to find a number of positive outcomes related to student satisfaction and retention. Chang (1999) found that students attending a diverse college or university, as defined by a calculation of the percentages of Asian American, Latino, African American, and White students attending an institution, are more likely to report higher levels of satisfaction with their college experience. Using Cooperative Institutional Research Program data from a 1985 administration of the Student Information Form and a 1989 follow-up survey, Chang examined the frequency of students’ socialization across race and discussions about race during college. Research participants consisted of more than 11,600 first-time full-time freshmen from 371 four-year colleges and universities. Results demonstrated that students at diverse institutions were apt to have a more positive intellectual and social self-concept and continued their education at that institution until completion of their degree (Chang). Thus, attending a diverse institution played a role in students’ overall positive college experience and persistence to graduation. Although this research does not imply that racial diversity directly causes the aforementioned positive
outcomes, Chang’s research informs the current study in further supporting Allport’s (1954) suggestion that interactions with diverse others positively influence students’ higher education experiences.

Limitations of the Literature on Diversity Outcomes

Although the literature on diversity outcomes in higher education provides some indication of how a diverse learning environment influences students, there are a number of limitations of existing research. The most glaring of these limitations is the narrow definition of diversity that has been used to date. In a vast majority of the studies that have been conducted to assess diversity in higher education, researchers have limited their definition of diversity to include only race and ethnicity (Antonio, 2001; Astin, 1993; Chang, 1999; MacPhee, Kreutzer, & Fritz, 1994; Milem & Umbach, 2003; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). Perhaps even more disconcerting is the characterization of diversity to which researchers adhere, in which the perspectives of primarily African American and White students are included in a sample. Although allowing researchers to examine students’ perspectives in a more manageable and simplistic way, this format reduces diversity to a Black-White dichotomy. These limitations point out how severely research has neglected the voices of other students of color and other forms of diversity.

In addition to the diversity-related limitations of past research, there are also limitations related to research design. Many studies of diversity have been conducted using a self-report format. Using this model, students are asked to indicate or describe their ideas about diversity. This presents a possible bias, as individuals may succumb to their desire to provide socially acceptable responses (McMillan & Schumacher, 2001).
Further, a majority of research studying diversity outcomes has been relational in nature. That is, the studies do not indicate cause and effect, but further explain the relationship of diversity to another variable. Although this information is useful, it does not provide solid evidence of diversity’s outcomes.

A third critique of research assessing the outcomes of diversity in higher education resides in the validity and reliability of the measures used to ascertain students’ perceptions of diversity. Although a large number of researchers have sought to operationally define diversity or multiculturalism for their studies, many have found that it is no easy task due to the frequently intangible nature of diversity outcomes. As a result, current literature offers a wide range of definitions for the construct, making it difficult to consistently and appropriately measure.

*Summary of Diversity Outcomes*

The theoretical framework and guiding research of diversity outcomes in higher education strongly indicate that students have much to gain from their interaction with individuals unlike themselves during the college years. The current study seeks to contribute to some of the gaps in the research by broadening the definition of diversity to include race/ethnicity, religion, and political beliefs and ideas. Moreover, this study included Asian/Asian American and Latino/a students, in addition to African/African American and Caucasian/White students. Although the outcomes of diversity are frequently intangible, and therefore, difficult to assess, this study seeks to further refine the construct; thus, this literature review serves as a guide in creating the current study.
Now that the theoretical and research backgrounds of diversity have been explored, the next section reviews the literature related to service-learning and the role that diversity plays in this pedagogy.

Service Outcomes

Service-learning has been shown to have a number of influential outcomes for student participants. Although there is a growing body of political support for service-learning programs due to governmental and institutional emphasis on creating an educated citizenry, there is little empirical research supporting the social and theoretical rationale for the pedagogy (Astin & Sax, 1998; Eyler, Giles, Root, & Price, 1997). Multiple studies have demonstrated the mixed results of community service and service-learning’s influence on students’ academic achievement (Astin & Sax; Berger & Milem, 2002; Eyler, Giles, & Braxton, 1997; Parker-Gwin & Mabry, 1998), while others have shown how service positively influences civic responsibility (Astin & Sax; Eyler, Giles, & Braxton; Parker-Gwin & Mabry). Unfortunately, research on service-learning’s diversity outcomes is only now coming to the forefront of service-learning research, and most of this research includes the topic of diversity as an addendum rather than as a focal point of the study.

Empirical studies focusing on the influence of service-learning on students’ diversity outcomes are relatively difficult to come by; however, the concept of service-learning is included in the much larger body of community service research, which offers a number of studies on the importance of diversity in service. To better understand the influence of service-learning activities, it is essential to examine the broader umbrella of community service activities, of which service-learning is one component. Therefore, this
review of the literature will consider community service experiences, in addition to service-learning, in terms of diversity outcomes.

Outcomes of Service

Participation in community service and service-learning has been found to enhance students’ life skills, including breaking down stereotypes, promoting tolerance and the ability to work with others across difference, openness to new ideas, and more complex understanding of social problems (Astin & Sax, 1998; Dunlap, 1998, Eyler & Giles, 1999; Jones & Hill, 2001). Table 2.1 summarizes the six studies that guide the current research. The first of these social problems, breaking down stereotypes, is an important step towards all other outcomes. Students who participate in service are able to learn through their interactions with individuals with whom they might not otherwise come into contact, thus bringing them face-to-face with their assumptions (Dunlap, 1998; Jones & Hill, 2001).

For example, in their study of over 3,000 undergraduate students, Astin and Sax (1998) found that students participating in community service experiences, compared to their peers who did not participate in service, were more likely to have greater positive change than non-participants in reducing negative stereotypes about people different from themselves. Data used in this study were collected as part of the 1990-1994 CIRP Freshman Survey and a 1995 follow-up survey called the College Student Survey. The researchers used a non-equivalent groups pre-test/post-test design to compare results of the longitudinal study between 2,309 students who participated in community service and a comparison group of 1,141 non-participants. Service participants demonstrated positive outcomes in the areas of civic responsibility, academic development, and life skills (Astin
Table 2.1

Overview of Related Theoretical Research Related to Community Service and Service-Learning

<table>
<thead>
<tr>
<th>STUDY</th>
<th>PURPOSE</th>
<th>SAMPLE</th>
<th>FINDINGS</th>
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</thead>
<tbody>
<tr>
<td>Astin &amp; Sax, 1998</td>
<td>Used an experimental design to examine students’ development in civic responsibility, educational attainment, and life skills.</td>
<td>Students attending 42 institutions with federally funded community service programs who participated in service as compared to non-participants ($N=3,450$).</td>
<td>Community service participation leads to increased life skills, including understanding social problems, knowledge and acceptance of racial/cultural groups, ability to get along with people of different races or cultures.</td>
</tr>
<tr>
<td>Berger &amp; Milem, 2002</td>
<td>Used a non-experimental design to increase understanding of how community service relates to development of self-concept, in terms of academic ability, achievement orientation, and psycho-social wellness.</td>
<td>Students attending a sample of United Methodist-affiliated liberal arts colleges across various types of community service involvement, including curricular service-learning ($N=441$).</td>
<td>The quality of service involvement was found to be related to the development of self-concept. Ancillary findings suggest that service participation in high school is related to college service involvement, potentially influencing a students’ higher level of self-concept.</td>
</tr>
<tr>
<td>Eyler &amp; Giles, 1999</td>
<td>Used a mixed methods design to examine students’ personal and interpersonal development, knowledge application, critical thinking, perspective transformation, and citizenship.</td>
<td>Students attending 20 colleges and universities who participated in a service-learning experience as compared to non-participants ($N=1544$).</td>
<td>Service-learning appears to break down stereotypes and leads to greater tolerance and acceptance across difference.</td>
</tr>
</tbody>
</table>
Table 2.1 (continued)

Overview of Related Theoretical Research Related to Community Service and Service-Learning

<table>
<thead>
<tr>
<th>STUDY</th>
<th>PURPOSE</th>
<th>SAMPLE</th>
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<tbody>
<tr>
<td>Eyler, Giles, &amp; Braxton, 1997</td>
<td>Used an experimental design to assess students’ citizenship skills, confidence in making a difference, community-related values, and perceptions of social problems and social justice.</td>
<td>Students attending 20 colleges and universities who participated in a range of service-learning course types as compared with non-participants ($N=1500$).</td>
<td>Students participating in service-learning were more likely to have served in high school, and women were more likely to have higher outcomes. Service-learning contributed to a systemic locus of social problems, social justice orientation, and openness to new ideas.</td>
</tr>
<tr>
<td>Jones &amp; Hill, 2001</td>
<td>Used naturalistic inquiry to examine students’ perspectives on diversity after participating in a service-learning course.</td>
<td>Undergraduate students who had completed an education course on leadership in community service, worked on a service project, and volunteered to be part of the study ($N=6$).</td>
<td>Suggested that service experience helps students learn about people different from themselves through interaction. Students reported increased self-understanding, awareness of different perspectives, and confrontation of stereotypes.</td>
</tr>
<tr>
<td>Neururer &amp; Rhoads, 1998</td>
<td>Used a qualitative design in which community service was explored as an educational tool, including the positive and negative aspects and how it is operationalized.</td>
<td>Undergraduate and graduate students at three universities who participated in some form of community service ($N=108$).</td>
<td>Community service was found to help students personalize the “other,” break down stereotypes, examine privilege, better understand systems of oppression.</td>
</tr>
</tbody>
</table>
Further, Astin and Sax found that service participants generally improved their interpersonal skills, including their ability to get along with people of different racial and cultural backgrounds. Although most community service participants exhibited positive change in their interpersonal skills, those students who served for greater numbers of hours demonstrated higher levels of diversity appreciation. From these results, it appears that individuals in service experiences develop a greater understanding of others by being a part of and immersing oneself in, rather than just visiting, a community (Bickford & Reynolds, 2002).

Astin and Sax’s (1998) study is also important when considering the population of students who participate in community service experiences. Astin and Sax found that students who took part in high school service activities were more likely to be involved in community service during their college years. Further, the study pointed out that there were gender differences in community service participation, with women serving more frequently than men. Overall, these learning experiences helped move students past stereotypes to a place of greater acceptance of difference, although, there were some demographic differences in the extent to which students experienced change.

Citing findings similar to Astin and Sax’s (1998) regarding the demographic characteristics of service participants, Berger and Milem (2002) examined students’ race, high school service experience, and type of service participation to determine if these factors related to their self-concept and likelihood to serve. The researchers obtained a data set of 441 students at six United Methodist-affiliated colleges who completed the 1992 CIRP Freshman Survey and the 1996 College Student Survey. The final data set included 1996 institutional data provided by each of the institutions and resulted in a 53%
response rate. Berger and Milem found that community service experiences through
service-learning courses contributed to students’ self-concept, defined in part as their
psychosocial wellness, including increased understanding of others, in a way that other
forms of community service did not. Results also showed that White students and
students who participated in community service in high school were more likely to
participate in service experiences than African American students or those who had not
participated in service before. These conclusions are significant in that they inform the
current study by exploring the role of race in student service participation. Further, these
findings demonstrate the importance of service-learning as a means to enhancing
students’ ability to relate to others.

Eyler and Giles (1999) found varying results relating to diversity outcomes in
their pilot study of 57 freshmen who served for three hours a week in local agencies.
After their service experiences, 75% of these students wrote more positive descriptions of
the people with whom they worked. Students indicated increased tolerance and ability to
work with others across difference. Through assessment of students’ levels of tolerance
prior to and after serving, Eyler and Giles discovered that, while controlling for factors
such as age, family income, gender, minority status, and placement type, students
demonstrated an increased level of tolerance after participating in a service-learning
course. Thus, unlike Astin and Sax’s (1998) findings, Eyler and Giles’ work suggests
that, regardless of the intensity of service-learning experiences, students’ perceptions of
others are influenced. Results from the study also indicate that the higher rates of service
participation in women may be related to a greater likelihood for women than men to
change their views of different others. Although Eyler and Giles’ sample was small, this
study reveals the influence of personal contact on breaking down negative stereotypes and informs the current study by addressing how varying levels of service-learning experience relate to students’ prejudicial attitudes and the overrepresentation of women in service-learning courses.

Increased openness to new ideas and concepts is another outcome of service that has been demonstrated in research. In their study of 1,140 service-learning students at institutions across the country, Eyler, Giles, and Braxton (1997) studied students’ confidence in making a difference, community-related values, citizenship skills, and perceptions of social problems and justice through the administration of a survey at the beginning and end of their service-learning experience. A comparison group of 404 students who chose not to participate in service-learning courses was also sampled, creating a non-equivalent groups pre-test/post-test quasi-experimental design. The researchers found that women more frequently participated in service-learning activities and that, through their involvement in service-learning, students were likely to increase their knowledge about new topics and shift attitudes and behaviors (Eyler, Giles, & Braxton). Significantly, Eyler, Giles, and Braxton suggested that these changes can begin to occur during the relatively short term of a semester and may relate to students’ openness to new perspectives well after their experience (Eyler, Giles, & Braxton). Thus, the outcomes that result from student participation in service-learning, although frequently short in duration, may relate to students’ long-term development.

Building upon Eyler, Giles, and Braxton’s (1997) findings, Jones and Hill (2001) observed that building friendships during service participation is related to overall attitudinal change. In their qualitative study of six undergraduate students who
volunteered to participate in the study after having been previously enrolled in a leadership in community service course with a required community service component, Jones and Hill found that students pointed to their interactive experience with people unlike themselves as a contributor to their overall learning. In fact, students consistently spoke about the close relationships from their service site as a means through which they experienced change. Specifically, students appeared to have gained greater self-understanding, a new awareness of diverse perspectives, and a sense of commonality with diverse individuals. Further, their service experiences appeared to provide a forum in which to face and directly challenge stereotypes about people different from them. Jones and Hill suggested that relationships that go beyond a surface level in community service experiences may help students to move past their stereotypes.

Students’ increased complexity in understanding social problems is another outcome that community service and service-learning research has suggested. Specifically, a number of studies have found that students who participate in some form of service are likely to see problems in a systemic, rather than individualistic, framework (Astin & Sax, 1998; Eyler, Giles & Braxton, 1997; Neururer & Rhoads, 1998). That is, participants began to recognize that social problems may have macro-level implications (e.g., a person of color who is perceived as lazy, but struggles to get a job due to institutionalized racism). In their qualitative study of the impact of community service in which they interviewed and observed 108 undergraduate and graduate students, Neururer and Rhoads (1998) reported that an overwhelming majority of participants expressed their newfound ability to connect their personal experience in serving to rethink the causes of issues such as poverty and homelessness. Students began to question and
commit to solving the broader questions of social exploitation and justice that they discovered through their service experience. Although the qualitative nature of this study does not offer statistical data on these findings, the experiential study of these students provides a wealth of detailed information about how community service appears to influence ideas about social problems. Much like Jones and Hill’s (2001) findings, these encounters appear to push students to better understand the “self-other” dichotomy in which they view a person unlike themselves solely in terms of difference (Guarasci & Cornwell, 1997). Such an opportunity frequently presents itself when diverse groups interact and helps the individual to cross social borders.

Limitations of the Literature on Service Outcomes

Although the literature provides a good understanding of how diversity outcomes are related to service, a number of limitations are present in the existing body of research. The first of these limitations resides in the exploratory nature of many studies related to community service and service-learning. Due to the complex nature of many service-related outcomes, variables may be difficult to operationalize, or may be very simplistic in their framing (Koulish, 2000). Thus, the exploratory studies conducted by Astin and Sax (1998), Milem and Berger (2002), Jones and Hill (2001), and Neururer and Rhoads (1998) may be difficult to generalize as a result of the varying definitions of service and diversity used. Nonetheless, the rich information provided in this research, along with the similar findings that these studies present, significantly informs the current study.

Another critique of previous research has to do with the prior service experience of students. Specifically, studies have been conducted exclusively in terms of students’ service experience prior to college. Thus, research regarding students’ community service
participation in college, preceding their enrollment in service-learning courses, has been widely overlooked.

The research design of some of these studies may also be a limitation of the current literature. Many of the most frequently cited studies of service have used data from large-scale research projects such as the Cooperative Institutional Research Program (CIRP), the College Student Survey (CSS), and the Comparing Models of Service-learning program (Astin & Sax, 1998; Berger & Milem, 2002; Eyler & Giles, 1999; Eyler, Giles, & Braxton, 1997). Although these projects provide a valuable source of information about college students from reliable instruments, questions on these instruments may not be valid in ascertaining much about diversity outcomes. Because the measures were not designed to extensively measure attitudes regarding diversity, the validity of the items in assessing these outcomes must be considered. Notwithstanding, these studies provide useful information about service-learning and the potential implications it has for diversity.

Summary of Literature on Service Outcomes

The research on community service and service-learning outcomes paints a picture of service opportunities as a useful tool in enhancing students’ understanding of structural inequality, reduction of negative stereotypes, and ability to relate to people who are unlike themselves (Astin & Sax, 1998; Berger & Milem, 2002; Eyler, Giles & Braxton, 1997; Eyler & Giles, 1999; Jones & Hill, 2001; Neururer & Rhoads, 1998). The current study seeks to build upon these findings to further examine students’ perceived appreciation of difference and awareness of structural inequality after participating in a service-learning course in an effort to contribute to the gaps in the literature that remain
to be explored. Namely, this study will employ a quantitative research design using an instrument specifically designed to study diversity as related to service-learning.

Summary of the Literature Review

Despite the relatively small number of research studies examining the effects of service-learning on students’ appreciation of diversity, it is generally accepted that service-learning has a positive effect on students’ ability to interact across difference (Neururer & Rhoads, 1998). As a unique pedagogy, service-learning offers students the opportunity to incorporate their classroom learning with “real life” applications and fosters a deeper understanding of the United States’ complex and multicultural society. By reviewing the research on service and diversity, this chapter provides a detailed context in which to understand the current study. Moreover, it accentuates the gap in service-learning literature that has neglected to focus on the relationship between service-learning and diversity education.
CHAPTER 3: METHODOLOGY

This chapter describes the overall research design of the study, including a description of the sample, instrumentation, data collection procedures, data preparation, and data analysis.

Purpose and Hypotheses

The purpose of this research was to explicate the relationship between characteristics of students participating in service-learning and diversity. Specifically, this study explored how, at the conclusion of a one-semester service-learning course, students’ perceptions of their appreciation of difference and awareness of structural inequality varied based on within group variables, including race, gender, number of completed service hours, and prior service experience. This study analyzed data from the Office of Community Service-Learning’s (OCSL) Curricular Service-Learning Survey, which was administered at the end of the Fall 2003 semester. Based on the review of literature cited in the previous chapter, the null hypotheses for this study were as follows:

Hypothesis 1: There are no differences in students’ perceived appreciation of difference and awareness of structural inequality based on racial group membership.

Hypothesis 2: There are no differences in students’ perceived appreciation of difference and awareness of structural inequality based on gender.

Hypothesis 3: There are no differences in students’ perceived appreciation of difference and awareness of structural inequality based on the interaction of racial group membership and gender.
Hypothesis 4: There are no differences in students’ perceived appreciation of difference and awareness of structural inequality based on the number of service hours required in their service-learning coursework.

Hypothesis 5: The combination of students’ prior high school service experiences, having a high school service requirement, and students’ previous college service experiences does not explain a significant amount of the variance in students’ perceived appreciation of difference and awareness of structural inequality.

The Office of Community Service-Learning

Created in 1993, the Office of Community Service-Learning serves as a clearinghouse of information and a resource for faculty, staff, and students at the University of Maryland in creating and implementing community service and service-learning opportunities. The mission of the office is to “promote service-learning as an integral aspect of education and to foster university engagement within the larger community” (Office of Community Service-Learning, 2002, ¶ 1) by providing and promoting curricular, cocurricular, and federal work-study service-learning opportunities. OCSL works closely with many faculty and staff to assist in integrating aspects of service-learning, including community service and critical reflection, into academic courses. OCSL staff members have worked with entire academic units, such as the Spanish Department, to create degree requirements with a service-learning focus and have aided living-learning programs to create experiential learning opportunities.

At the end of each semester, the Office of Community Service-Learning administers an assessment survey to measure students’ responses to their service-learning participation. After more than five years of collecting data reporting students’ attitudes
regarding service-learning, OCSL modified their curricular, cocurricular, and federal work study service-learning surveys in the Spring of 2003 to assess student outcomes as related to service participation. The first of these, the *Curricular Service-Learning Survey*, was used in the current study.

**Research Design**

This study employed an ex post facto design, with one-group post-test only, in which within-group comparisons of participants at the conclusion of a one-semester service-learning course were made based on their race, gender, number of service hours completed, and prior participation in service. Thus, the diversity outcome measures (appreciation of difference and awareness of structural inequality) were explored by examining the relationships with the independent variables of race, gender, number of completed service hours, and prior service participation as reported by participants. Overall, this research sought to examine a preexisting condition using a sample of students who had participated in service-learning courses, rather than a random assignment of participants to treatment groups (McMillan & Schumacher, 2001).

Data were collected by contacting instructors for all courses at the University of Maryland that were known by the Office of Community Service-Learning to include a service-learning component in the curriculum. Instructors were contacted by phone or by email and offered the opportunity to administer the survey to their students on the last day of the course, ensuring a high participant response rate and broad range of courses and service experiences. Participants completed the survey instrument at one particular time after their service had been completed and the course was concluding.
Sample

Participants in the study were students in one of four semester-long service-learning courses in the Fall 2003 semester at the University of Maryland, College Park, a predominantly White, four-year, public research institution. According to the University’s Office of Institutional Research (2003), the undergraduate student population is racially diverse, made up of approximately 12.3% Black/African Americans, 13.8% Asian/Asian Americans, 59.1% Caucasian/Whites, 5.5% Latino/as, .3% Native Americans, 2.4% International, and 6.7% Unknown. The university does not account for biracial or multiracial students. In terms of gender, the population of the student body is 51% male and 49% female.

The sample used in the analyses consisted of 198 undergraduate students enrolled in one-semester service-learning courses. Courses ranged from one-to three-credit hours with varying service time requirements. In the sample were 12 African/African American (6.2%), 37 Asian/Asian American (19%), 131 Caucasian/White (66.2), 6 Latino/a (3.2%), 6 Bi/Multiracial (3.2%), and 4 Other (2.2%) participants (Table 3.1). The sample did not include any Native American individuals. Of the participants, 106 were female (54%), 89 were male (45%), and 3 were transgender (1%). Demographic information for this sample, as compared to a national sample of National Campus Compact member institutions and the University of Maryland undergraduate population, is provided in Table 3.1. As is evident from the table, the sample used in the current study is somewhat different from University of Maryland and National Campus Compact statistics, with lower percentages of African/African American and Latino/a students and higher percentages of Asian/Asian American and Caucasian/White students. Percentages of
Table 3.1

*National, University of Maryland, and Current Study Student Characteristics*

<table>
<thead>
<tr>
<th></th>
<th>National Campus Compact</th>
<th>University of Maryland</th>
<th>Current Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td><strong>Race:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African/African American</td>
<td>10%</td>
<td>3,131</td>
<td>12.3%</td>
</tr>
<tr>
<td>Asian/Asian American</td>
<td>7%</td>
<td>3,502</td>
<td>13.8%</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>71%</td>
<td>15,026</td>
<td>59.1%</td>
</tr>
<tr>
<td>Latino/a</td>
<td>7%</td>
<td>1,400</td>
<td>5.5%</td>
</tr>
<tr>
<td>Native American</td>
<td>2%</td>
<td>74</td>
<td>0.3%</td>
</tr>
<tr>
<td>Bi/Multiracial</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>International</td>
<td>--</td>
<td>619</td>
<td>2.4%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
<td>1,694</td>
<td>6.7%</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>64%</td>
<td>12,512</td>
<td>49.2%</td>
</tr>
<tr>
<td>Men</td>
<td>35%</td>
<td>12,934</td>
<td>50.8%</td>
</tr>
<tr>
<td>Transgender</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Note: Two of the 198 participants did not indicate their race. As a result, only 196 participants are represented in this table. Values with a dash indicate that data were not available. Adapted from “Campus Compact Annual Service Statistics—2003,” by National Campus Compact, 2003, *Campus Compact annual service statistics—2003*. Retrieved June 8, 2004, from Campus Compact Web site: http://www.compact.org/newscc/stats2003/B.html. Percentages from this document may not total 100%. University of Maryland data adapted from “Who’s on campus now?,” Office of Institutional Research, Fall 2003. Retrieved February 13, 2003, from http://www.oirp.umd.edu/WOCN/all.cfm

43
Table 3.2

*Sample Demographics of Race and Gender*

<table>
<thead>
<tr>
<th>Race</th>
<th>Women</th>
<th>Men</th>
<th>Transgender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>African/African</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>American</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Asian</td>
<td>23</td>
<td>14</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>American</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>64</td>
<td>66</td>
<td>1</td>
<td>131</td>
</tr>
<tr>
<td>Latino/a</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Bi/Multiracial</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104</td>
<td>89</td>
<td>3</td>
<td>196</td>
</tr>
</tbody>
</table>

Note: Two of the 198 participants did not indicate their gender. As a result, only 196 participants are represented in this table.
women and men students were more similar in the current study than in National Campus Compact’s findings. A description of the sample by race and gender is provided in Table 3.2.

Description of Service-Learning Courses

The four service-learning courses were two freshman honors colloquia, one 200-level education course, and one freshman introductory course for education majors. Thus, most of the participants in the current study were first-year students. According to the University’s Fall 2003 Schedule of Classes, the first honors colloquium, Honors 100, involved an active exploration of campus and community educational resources, with a focus on expanding students’ conceptualization of an educated person. Gemstone 100, the second honors colloquium, a similar course, allowed students to explore and discuss topics such as current events, liberal education, service, academic integrity, diversity, arts, and styles of leadership (University of Maryland). Both of these were one-credit hour, freshman courses with 20 or fewer students.

Much like the preceding courses, the 200-level Education Policy and Leadership course, Education in Contemporary American Society, examined current practices in education. Additionally, the three-credit hour course had a special focus on issues of inequality, cultural difference, and educational opportunity (University of Maryland, 2003). The final course, University 101, provided students with a basic introduction to the university environment with a special emphasis on computer-based resources and the internet. Restricted to education majors, this section of the two-credit hour course highlighted University of Maryland and community resources (University of Maryland). Each of the courses required participation in a community service project of some sort.
and lasted throughout the entire Fall 2003 semester, despite the variation in credits associated with the course.

Instrument and Measures

Curricular Service-Learning Survey

The *Curricular Service-Learning Survey (CSLS)* was created by the Center for Academic Excellence at Portland State University and modified by OCSL in order to assess students’ self-perceived outcomes of service-learning courses. Obtained in 1999 and modified during the Spring semester of 2003, the CSLS is based on the Social Change Model of Leadership (Working Ensemble, 1996), which suggests that leadership is an ongoing process that is enhanced through the promotion of such values as “equity, social justice, self-knowledge, personal empowerment, collaboration, citizenship, and service” (p. 18). Emphasizing the importance of collaboration, the model explains that students develop at individual, group, and community levels. Thus, the CSLS is intended to examine outcomes related to the individual level of the model, which includes civic engagement, collaborative leadership, and appreciation of diversity.

In designing modifications for the instrument, the Office of Community Service-Learning extracted questions from the National Survey for Student Engagement (NSSE; Kuh, 2001), the Socially Responsible Leadership Scale (SRLS; Tyree, 1998), and the Center for Information and Research on Civic Learning and Engagement’s research on civic engagement (CIRCLE; 2003), in addition to questions that were created locally to measure diversity outcomes. Although the NSSE has been used extensively in research and has national norms for reliability and validity, the SRLS and CIRCLE instruments have been used predominantly at the University of Maryland, College Park, offering no
national norms against which to compare findings. Moreover, due to the gap in research on diversity-related college outcomes, only a small number of well-tested questions are available that effectively measure the construct of diversity, both within these instruments and through alternative sources. Thus, OCSL staff members modified questions from the NSSE and created additional questions relating to diversity.

A pilot test was run by OCSL during the Spring 2003 semester to get initial reliability and validity information for the CSLS. Participants in the pilot study included 37 African Americans (25%), 16 Asian/Asian Americans (11%), 72 Caucasian/Whites (48%), 9 Latino/as (6%), 1 Native American (1%), 5 Biracial/Multiracial individuals (3%), and 9 students who selected Other (6%), totaling 149 participants. Although this sample is not representative of the racial demographics of the University of Maryland undergraduate population, it does provide the input of a group of students who reflect the diversity of the student body. Results of the pilot study, although candid and informal in nature, indicated that the survey is an appropriate length and understandable to participants; however, feedback from the instructors administering the survey and suggestion from the Institutional Review Board pointed out that more precise directions for survey administrators were necessary. A question assessing the number of community service hours required in students’ service-learning courses was also added, as this information was not previously collected for the curricular version of the survey. Thus, the Office of Community Service-Learning made appropriate revisions, including more explicit instructor information, and the creation of one additional survey question.

Validity of the CSLS, or the degree to which the survey measures what it purports to measure (McMillan & Schumacher, 2001), was determined by assessing face validity.
More precisely, the Office of Community Service-Learning sought out previously existing instruments of high quality (i.e., NSSE, SRLS, CIRCLE), modified questions from these surveys, and then created items to bridge the gaps in the diversity measures. When the survey was complete, OCSL staff members examined the instrument to determine if it appeared to measure the three constructs it was originally intended to measure: civic engagement, collaborative leadership, and appreciation of diversity. Upon detailed review of the instrument, face validity was established.

**Diversity Measures**

Two diversity measures, one for students’ perceived appreciation of difference and a second for students’ perceptions of their awareness of structural inequality, were constructed from 23 items on the *CSLS* intended to measure civic engagement, collaborative leadership, and appreciation of diversity.

To develop and ensure the validity of the diversity measures, an expert review was conducted for the current study. Reviewers consisted of one biracial Native American and White man who identifies as gay, one African American heterosexual woman, and one White heterosexual man. All three reviewers are knowledgeable in the area of diversity and are currently pursuing doctoral degrees in education with strong interests in multiculturalism. Reviewers were selected for their understanding of the diversity construct and their pluralistic perspectives.

The entire set of 23 items intended to measure civic engagement, collaborative leadership, and appreciation of diversity was provided to reviewers, and they were asked to determine into which category each item best fit. Based on the definition of diversity used in this study, the categories were *appreciation of difference, awareness of structural*
inequality, and neither. Only those items that at least two reviewers agreed upon were used in the operationalization of the diversity construct. For one item, “understanding how race(s) shapes your identity,” expert reviewers were uncertain of which category it best fit. That is, they each chose a different category (i.e., appreciation of difference, awareness of structural inequality, and neither, respectively) in which to include the item. Based on the Cronbach alpha analysis described below, that item was assigned to the appreciation of difference scale. All other items were agreed upon by at least two reviewers, with 10 of the total 18 diversity questions attaining agreement of all reviewers. Thus, recommendations of the expert reviewers supported the creation of two scales from the 18 items for the two components of the diversity definition, appreciation of difference and awareness of structural inequality, and eliminated five items from use.

Thus, two scales to measure the construct of diversity, that is, students’ self-perceived appreciation of difference and awareness of structural inequality, were constructed using a set of 18 statements situated on a 4-point Likert-type scale including responses of very little, some, quite a bit, and very much. In addition, selected demographic and service variables were used from the CSLS (see Tables 3.3 and 3.4).

In order to determine the reliability of the scales that measure each diversity construct, Cronbach alphas were calculated. Cronbach alpha provides a measure of internal consistency or reliability of the scale (McMillan & Schumacher, 2001). A Cronbach alpha of .93 was calculated for the appreciation of difference scale (12 items), while the awareness of structural inequality scale (6 items) demonstrated a Cronbach alpha of .89. Thus, it appears that these two scales demonstrate high internal consistency.

Further, because of the lack of clarity of the reviewers, the “understanding how race(s)
Table 3.3

*Demographic and Service Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>African/African American= 1, Asian/Asian American= 2, Caucasian/White= 3, Latino/a= 4, Native American= 5, Bi/Multi-racial= 6, Other= 7</td>
</tr>
<tr>
<td>Gender</td>
<td>Male= 1, Female= 2, Transgender= 3</td>
</tr>
<tr>
<td>High School Service Requirement</td>
<td>Yes= 1, No= 2</td>
</tr>
<tr>
<td>Service Prior to UM</td>
<td>Strongly Disagree= 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly Agree= 5</td>
</tr>
<tr>
<td>Service at UM Prior to Course</td>
<td>Strongly Disagree= 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly Agree= 5</td>
</tr>
<tr>
<td>Service Hours during course</td>
<td>1-25 hours, 26-50 hours, 51-75 hours, 76-100 hours, more than 100 hours</td>
</tr>
</tbody>
</table>
Table 3.4

*Diversity Scales and Items*

<table>
<thead>
<tr>
<th>Appreciation of Difference</th>
<th>Cronbach α = .93</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent has your community service experience contributed to your:</td>
<td></td>
</tr>
<tr>
<td>Interacting with students of a race or ethnicity different than your own</td>
<td></td>
</tr>
<tr>
<td>Interacting with students of different religious or political backgrounds</td>
<td></td>
</tr>
<tr>
<td>Understanding of people from races/ethnicities different than your own</td>
<td></td>
</tr>
<tr>
<td>Understanding how your race(s) shape your identity</td>
<td></td>
</tr>
<tr>
<td>Understanding diverse cultural, political and intellectual views</td>
<td></td>
</tr>
<tr>
<td>Willingness to seek out new experiences</td>
<td></td>
</tr>
<tr>
<td>Ability to work well with others</td>
<td></td>
</tr>
<tr>
<td>Ability to foster a shared vision when working with others</td>
<td></td>
</tr>
<tr>
<td>Comfort level with conflict</td>
<td></td>
</tr>
<tr>
<td>Ability to work in changing environments</td>
<td></td>
</tr>
<tr>
<td>Respecting opinions other than your own</td>
<td></td>
</tr>
<tr>
<td>Openness to new ideas</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Awareness of Structural Inequality</th>
<th>Cronbach α = .89</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent has your community service experience contributed to your:</td>
<td></td>
</tr>
<tr>
<td>Awareness that systems can disadvantage groups of people</td>
<td></td>
</tr>
<tr>
<td>Interest in addressing national or global social problems</td>
<td></td>
</tr>
<tr>
<td>Commitment to lifelong involvement in the community addressing social problems</td>
<td></td>
</tr>
<tr>
<td>Belief that individuals or groups doing community service can solve social problems</td>
<td></td>
</tr>
<tr>
<td>Belief that individuals or groups taking political action can solve social problems</td>
<td></td>
</tr>
<tr>
<td>Belief that it is your responsibility as someone who lives in the community to be involved in solving the community’s social problems</td>
<td></td>
</tr>
</tbody>
</table>

Note: *Appreciation of Difference* and *Awareness of Structural Inequality* items were based on the following Likert scale: Very Little= 1, Some= 2, Quite a Bit= 3, Very Much= 4.
shapes your identity” item was initially included in each of the scales. In calculating the Cronbach alphas for each scale, the item was found to fit better empirically with the appreciation of difference construct, allowing for clarification of the expert reviewers’ uncertainty. Overall, this “understanding how race(s) shapes your identity” item was included in a Cronbach alpha for each of the scales and found to fit best empirically with the appreciation of difference construct, allowing for clarification of the expert reviewers’ uncertainty. Overall, this process provided an empirical confirmation of the theoretical recommendations made by the expert reviewers.

Data Collection Procedures

Data collection in the study was a multi-faceted process. Selected through a nonprobability convenience sample, participants were chosen based on their course enrollment, knowledge of the course by the Office of Community Service-Learning, and their instructor’s agreement to take part in the study. The Office of Community Service-Learning first consulted an ongoing list of professors using service-learning pedagogies in their courses and contacted them by phone or email. Staff members then used a snowball sampling technique to identify additional service-learning courses by speaking with instructors of seven previously known courses. Thus, not all courses including service-learning pedagogy at the University of Maryland were included. Once a sample of seven courses and 478 students was determined, OCSL distributed survey instruments to instructors one week before the final meeting of each course, with individual instructors administering the survey in their respective classrooms during the final class period. Collected data represented 198 students from four service-learning courses during the Fall 2003 semester. Specifically, 37 of the 240 distributed surveys were collected.
from the Honors 100 course (15% response rate), the Gemstone 100 course returned 144 of the 204 originally dispersed (71%), Education Policy and Leadership submitted 7 of the 12 instruments provided to the instructor (58%), and 10 of the 12 University 101 surveys were returned in their completion (83%). Thus, a majority of participants, that is 144 of 198, were students in the Gemstone 100 course.

Instructors were asked to read a short protocol to their class before distribution of the survey. The instrument and a consent form, which was stapled to the front of the survey before distribution, were then dispersed to students by instructors during class time (Appendix A). OCSL recommended that instructors allow approximately 10-15 minutes for participants to fill out the survey, at which point students were asked to return completed instruments. Immediately upon submission, the consent form and the survey were separated so as to maintain the highest level of participant anonymity possible. The Office of Community Service-Learning also asked instructors to complete an informed consent form along with a short survey that provided more detailed information about the course; however, the instructor survey was not utilized in this study.

Data Preparation

Upon gaining access to the previously collected data from OCSL, a number of steps were taken to prepare the data set for use in the current study. Because data from cocurricular and federal work-study surveys were also included in the complete data set, the first step was to delete all data not needed for this research. Data collected from previous semesters also were deleted, as the set was not complete given revisions that had been made to the instrument. Additionally, data about the number of service hours required by the course were added.
Once an appropriate data set for the current study was established, some preparations were made to accommodate missing cases within subjects. In dealing with missing data, it was decided that only responses of participants who had completed 90% or more of the items would be retained. Thus, if any participant failed to respond to more than two questions of the 18 diversity-related measures on the instrument, that participant would be deleted; as a result, the responses of two participants were deleted. Participants who were missing two or fewer values were retained in the sample, and the remaining missing values were replaced using the series mean, or average of all other values in that variable (George & Mallery, 2003).

The final steps in data preparation involved the recoding of variables that were previously entered by the Office of Community Service-Learning, in addition to creating new variables from existing variables. For example, although the race variable was included in one demographic item on the survey instrument, race was originally coded as seven separate variables. That is, African/African American was one; Asian/Asian American was a second, and so forth. In order to combine the races into one variable, it was necessary to create an entirely new item. Thus, each race was recoded from the original yes/no format (i.e., no=blank, yes=1) to responses ranging from 1-7 (i.e., African/African American =1, Asian/Asian American=2, Caucasian/White=3, Latino/a=4, Native American=5, Bi/Multiracial=6, Other=7).

Using the feedback of three expert reviewers, scales were then created for each of the diversity components, appreciation of difference and awareness of structural inequality. A Cronbach’s alpha was run on each scale to ensure the internal consistency of the measures, reporting alphas of .93 and .89, respectively.
Data Analysis

Of the original 478 surveys distributed to the seven courses, there were 198 usable responses from four courses, resulting in a 41% return rate. Data were entered into SPSS, and descriptive statistics, consisting of frequencies and percentages, were computed including: (a) students’ race, (b) gender, and (c) number of completed service hours for the course. Means and standard deviations were also calculated for (a) service prior to the University of Maryland and (b) service at the University of Maryland prior to the course.

Hypotheses One and Two (i.e., there is no difference in students’ perceived appreciation of difference and awareness of structural inequality based on racial group membership and gender) were analyzed using Analysis of Variance (ANOVA) with a significance level of \( p < .05 \). For each hypothesis, an analysis was done for each component of the diversity definition (i.e., appreciation of difference and awareness of structural inequality). Thus, for Hypotheses One and Two, four one-way ANOVAs were completed. The ANOVA statistic is used to determine if there are differences between means; that is, it shows how the independent variable relates to the dependent variable (Lomax, 2001). Due to the categorical nature of the independent variables, this method of analysis was most appropriate when used with a continuous dependent variable, namely, the two diversity scales. As a result of the small numbers of students of color and transgender students, each of the hypotheses included only a subset of the sample in analysis. Thus, only African/African American, Asian/Asian American, and Caucasian/White students were included in the race analyses and only women and men students were examined in the gender analyses.
Hypothesis Three (i.e., there is no difference in students’ perceived appreciation of difference and awareness of structural inequality based on the interaction of racial group membership and gender) was analyzed using two-way ANOVA with a significance level of $p<.05$. The two-way Analysis of Variance allows for the simultaneous analysis of the effects of two independent variables with multiple levels on one dependent variable (Lomax, 2001). This method of analysis was used due to the categorical nature of the variables and provides a more complex understanding of how the interaction of race and gender relates to students’ perceptions of their appreciation of difference and awareness of structural inequality. In order to assess both components of the diversity construct, two two-way ANOVAs were performed. Like the first set of hypotheses, due to the small numbers of students of color and transgender students, Hypothesis Three included only a portion of the entire sample for analysis. Thus, only women and men students and Asian/Asian American and Caucasian/White students were examined when exploring the interaction of race and gender.

For Hypothesis Four (i.e., there is no difference in students’ perceived appreciation of diversity and awareness of structural inequality based on number of service hours required in their service-learning course), it was planned to use one-way ANOVAs. However, because there was no variation in number of service hours, these ANOVAs could not be completed.

Finally, Hypothesis Five (i.e., the combination of students’ prior high school service experiences, having a high school service requirement, and their previous college service experiences does not explain a significant amount of the variance in students’ perceived appreciation of difference and awareness of structural inequality) was analyzed
using multiple regression. The regression model was appropriate in this analysis due to its versatility with various types of designs and kinds of data (Borg & Gall, 1989). The statistic determines if the independent variables explain a significant amount of variability in the diversity measures (McMillan & Schumacher, 2001). In this design, the high school service requirement measure, the service prior to the University of Maryland measure, and the service at the University of Maryland prior to the service-learning course measures were entered simultaneously as a block. As in the previous two sets of hypotheses, two analyses were conducted in order to envelop both the appreciation of difference and awareness of structural inequality components of the diversity definition. An intercorrelation matrix of the three variables (i.e., high school service requirement, service prior to the University of Maryland, and service at the University of Maryland prior to the service-learning course) was also created to determine if the items were highly correlated, that is, conveying very similar information (Motulsky, n.d.). These additional analyses tested for multicollinearity of the variables and provided more detailed information about the relationships among the variables.

Summary

This chapter has explained the methods used in this quantitative study of students’ perceived appreciation of difference and awareness of structural inequality after participation in a one-semester service-learning course. The next chapter examines and presents the results obtained with these methods.
CHAPTER 4: RESULTS

The focus of this study was to understand the relationships between characteristics of students’ participating in one-semester service-learning courses and their perceptions of their appreciation of difference and awareness of structural inequality as a result of participating in a service-learning course. More specifically, the study examined how these relationships varied based on within group variables, including race, gender, number of completed service hours, and prior service experiences of students participating in a service-learning course. This chapter will detail the results of the statistical analyses conducted for each component of diversity (i.e., appreciation of difference and awareness of structural inequality) of the five hypotheses.

Preliminary Analysis of Diversity Scales

For the purposes of this study, diversity was defined as one’s openness and ability to (a) appreciate multiple perspectives and (b) critically consider social issues and structural inequalities (O’Grady, 2000). In order to account for this two-faceted definition of the construct, two scales were created from the Curricular Service-Learning Survey. The first scale included items measuring students’ self-perceived appreciation of difference; the second scale reported participants’ perceptions of their awareness of structural inequalities. Each scale is described below.

Appreciation of Difference

Twelve items from the Curricular Service-Learning Survey comprised the appreciation of difference scale of the diversity construct. The mean for the appreciation of difference scale was 26.94 (SD=8.52), with a Cronbach alpha of .93 (Table 4.1). Thus, the scale demonstrated high internal consistency.
Table 4.1

Means and Standard Deviations for Diversity Scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appreciation of Difference Variables</td>
<td>198</td>
<td>26.94^a</td>
<td>8.52</td>
</tr>
</tbody>
</table>

To what extent has your community service experience contributed to your:

- Interacting with students of a race or ethnicity different than your own
- Interacting with students of different religious or political backgrounds
- Understanding of people from races/ethnicities different than your own
- Understanding how your race(s) shape your identity
- Understanding diverse cultural, political and intellectual views
- Willingness to seek out new experiences
- Ability to work well with others
- Ability to foster a shared vision when working with others
- Comfort level with conflict
- Ability to work in changing environments
- Respecting opinions other than your own
- Openness to new ideas

Cronbach \( \alpha = .93 \)

^a Possible range of scores was 12.00-48.00.

| Awareness of Structural Inequality Variables       | 198 | 13.57^b | 4.45|

To what extent has your community service experience contributed to your:

- Awareness that systems can disadvantage groups of people
- Interest in addressing national or global social problems
- Commitment to lifelong involvement in the community addressing social problems
- Belief that individuals or groups doing community service can solve social problems
- Belief that individuals or groups taking political action can solve social problems
- Belief that it is your responsibility as someone who lives in the community to be involved in solving the community’s social problems

Cronbach \( \alpha = .89 \)

^b Possible range of scores was 6.00-24.00.

Note: Appreciation of Difference and Awareness of Structural Inequality items were based on the following Likert scale: Very Little= 1, Some= 2, Quite a Bit= 3, Very Much= 4.
Awareness of Structural Inequality

The awareness of structural inequality scale consisted of six items from the CSLS. The mean for the awareness of structural inequality scale was 13.57 (SD 4.45), with a Cronbach alpha of .89 (Table 4.1). Like the appreciation of difference scale, the awareness of structural inequality scale demonstrated high internal consistency.

Testing of Hypotheses

Hypothesis One: Racial Group Membership and Diversity

The first null hypothesis stated that there were no differences in students’ perceived appreciation of difference and awareness of structural inequality based on racial group membership. This hypothesis was tested for each of the two components of diversity using a one-way Analysis of Variance. Groups included in this analysis were Asian/Asian American, African/African American, and Caucasian/White students. Due to small cell sizes, Latino/a, Native American, and Bi/Multiracial students were not included.

Appreciation of difference. Results of the one-way ANOVA indicated that there was no significant difference in students’ perceptions of their appreciation of difference based on race, $F(2, 177)=1.90, p>.05$. Results are summarized in Table 4.2. Since there was no significant difference relating to race, the null hypothesis could not be rejected.

Awareness of structural inequality. Results of the one-way ANOVA for awareness of structural inequality indicated that there was a significant difference in students’ perceived awareness of structural inequality by race, $F(2, 177)=4.20, p<.05$. Thus, the null hypothesis was rejected. Because the findings were significant, a
Table 4.2

ANOVA Results: Appreciation of Difference by Race (N=180)

<table>
<thead>
<tr>
<th>Race</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>$F$ (df)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>African/African American</td>
<td>12</td>
<td>27.25</td>
<td>6.85</td>
<td>1.90 (2, 177)</td>
<td>.15</td>
</tr>
<tr>
<td>Asian/Asian American</td>
<td>37</td>
<td>29.03</td>
<td>8.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>131</td>
<td>26.04</td>
<td>8.24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of scores was 12.00- 48.00.

Table 4.3

ANOVA Results: Awareness of Structural Inequality by Race (N=180)

<table>
<thead>
<tr>
<th>Race</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>$F$ (df)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>African/African American</td>
<td>12</td>
<td>14.67</td>
<td>3.23</td>
<td>4.20 (2, 177)</td>
<td>.02*</td>
</tr>
<tr>
<td>Asian/Asian American</td>
<td>37</td>
<td>15.11a</td>
<td>4.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>131</td>
<td>12.92b</td>
<td>4.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of scores was 6.00- 24.00. Means with different subscripts differ significantly according to Fisher’s LSD at the $p<.05$ level.

* $p<.05$
Fisher’s Least Significant Difference (LSD) post hoc test was employed to determine which groups were significantly different from each other. Fisher’s LSD uses multiple pairwise *t* tests to contrast each group within an analysis (i.e., African/African Americans, Asian/Asian Americans, and Caucasian/Whites) (Lomax, 2001). The LSD statistic indicated that Asian/Asian American students (\(M=15.1, SD=4.6\)) and Caucasian/White students (\(M=12.9, SD=4.3\)) differed significantly in their perceived awareness of structural inequality \(p<.01\). The remaining pairs of groups (i.e., African/African American and Caucasian/White, and African/African American and Asian/Asian American) did not demonstrate significant differences. Results are summarized in Table 4.3.

**Hypothesis Two: Gender and Diversity**

Hypothesis Two stated that there were no differences in students’ perceived appreciation of difference and awareness of structural inequality based on gender. This hypothesis was tested for each of the two components of diversity using a one-way Analysis of Variance. Groups included in this analysis were women and men students. Due to a small number, transgender students were not included.

*Appreciation of difference.* Results of the one-way ANOVA indicated that there was a significant difference between men’s and women’s perceptions of their appreciation of difference, \(F(1,193)=6.68, p<.05\). Specifically, it appears that women (\(M=28.42, SD=7.71\)) perceived that their community service experience contributed to higher levels of appreciation of difference than did men (\(M=25.29, SD=9.21\)). As a result, the null hypothesis was rejected. Results are summarized in Table 4.4.
### Table 4.4

*ANOVA Results: Appreciation of Difference by Gender (N=195)*

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>F (df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>106</td>
<td>28.42</td>
<td>7.71</td>
<td>6.68 (1, 193)</td>
<td>.011*</td>
</tr>
<tr>
<td>Male</td>
<td>89</td>
<td>25.29</td>
<td>9.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of scores was 12.00-48.00.

* *p < .05

### Table 4.5

*ANOVA Results: Awareness of Structural Inequality by Gender (N=195)*

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>F (df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>106</td>
<td>14.57</td>
<td>3.96</td>
<td>11.04 (1, 193)</td>
<td>.001**</td>
</tr>
<tr>
<td>Male</td>
<td>89</td>
<td>12.49</td>
<td>4.77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of scores was 6.00-24.00.

** *p < .01
Awareness of structural inequality. The one-way ANOVA also indicated that there was a significant difference in men’s and women’s perceptions of the extent to which their service experience contributed to their awareness of structural inequality, $F(1,193)=11.04, p<.01$. It appears that women ($M=14.56, SD=3.96$) perceived their service experience as having contributed to higher levels of awareness of structural inequality than did men ($M=12.48, SD=4.77$). Given these results, the null hypothesis was rejected. Results are summarized in Table 4.5.

Hypothesis Three: Racial Group Membership, Gender, and Diversity

The third hypothesis stated that there is no difference in students’ perceived appreciation of difference and awareness of structural inequality based on the interaction of racial group membership and gender. Hypothesis Three was analyzed using a two-way Analysis of Variance. Due to small numbers of students of color and transgender students, only Asian/Asian American and Caucasian/White women and men students were included in analysis. Consequently, the main effects of race and gender for these analyses will not be discussed, as they were explored using one-way ANOVAs with a more complete group for each respective analysis. Findings presented here pertain only to the interaction effects of race and gender.

Appreciation of difference. The results of the two-way ANOVA indicated that there was no significant difference in the interaction of gender and race and students’ perceptions of their appreciation of difference as a result of their service participation $F(1, 163)=1.05, p>.05$. That is, there is no significant difference between women’s and men’s perceived appreciation of difference according to racial group identification. Given
### Table 4.6

*ANOVA Results: Appreciation of Difference by Race and Gender Interaction (N=167)*

<table>
<thead>
<tr>
<th>Race</th>
<th>Asian/Asian American</th>
<th>Caucasian/White</th>
<th>$F$ (df)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>29.48 8.33</td>
<td>28.34 7.51</td>
<td>1.05 (1, 163)</td>
<td>.31</td>
</tr>
<tr>
<td>Male</td>
<td>28.29 9.96</td>
<td>23.94 8.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of scores was 12.00-48.00. Results are not significant at $p<.05$.

### Table 4.7

*ANOVA Results: Awareness of Structural Inequality by Race and Gender Interaction (N=167)*

<table>
<thead>
<tr>
<th>Race</th>
<th>Asian/Asian American</th>
<th>Caucasian/White</th>
<th>$F$ (df)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>15.43 3.74</td>
<td>14.35 4.12</td>
<td>1.33 (1, 163)</td>
<td>.25</td>
</tr>
<tr>
<td>Male</td>
<td>14.57 5.87</td>
<td>11.63 4.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Possible range of scores was 6.00-24.00. Results are not significant at $p<.05$. 
this analysis, the null hypothesis was not rejected. Table 4.6 provides a summary of these findings.

Awareness of structural inequality. Similar to the first component of Hypothesis Three, there was not a significant difference between women’s and men’s perceived awareness of structural inequality as a result of their service-learning experience based on racial group membership, $F(1,163)=1.33$, $p>.05$. As a result, the null hypothesis was not rejected. (See Table 4.7 for a summary.)

Hypothesis Four: Number of Service Hours Required in Service-Learning Course and Diversity

Hypothesis Four stated that there is no difference in students’ perceived appreciation of difference and awareness of structural inequality based on the number of service hours required in their service-learning coursework. Thus, because there was no variation in the number of required service hours for service-learning courses, Hypothesis Four could not be tested.

Hypothesis Five: High School, Previous College Service, and Diversity

Hypothesis Five stated that the combination of students’ prior high school service experiences and their previous college service experiences does not explain a significant amount of the variance in students’ perceived appreciation of difference and awareness of structural inequality. This hypothesis was examined using a basic regression model with three independent variables, including (a) service at the University of Maryland prior to participation in a service-learning course ($M=2.47$, $SD=1.41$; 5 point Likert scale of 1= strongly disagree, 5= strongly agree), (b) service participation prior to the University of Maryland ($M=4.49$, $SD=.84$; 5 point Likert scale of 1= strongly disagree, 5= strongly

66
agree), and (c) high school service requirement (14.6% = no service requirement, 85.4% = service requirement), entered as a block. Prior to conducting the regression analyses, an intercorrelation matrix of the three independent variables and two dependent variables was created to test for multicollinearity (Table 4.8). Results of the intercorrelation matrix suggested that the items were not highly correlated, eliminating the possibility of multicollinearity.

**Appreciation of difference.** Results from the regression suggest that students’ service experience prior to their participation in a service-learning course explains approximately 6% of the variance in their perceived appreciation of difference, $R^2 = .06$, adj. $R^2 = .05$, $F(3, 194) = 4.20, p < .01$. This explains a significant amount of the variance, thus the null hypothesis was rejected. Specifically, students’ service experience prior to the University of Maryland and their requirement of service in high school contributed a significant amount of the variance ($p < .05$ and $p < .01$, respectively) in students’ perceived appreciation of difference. Table 4.9 summarizes the results of this regression analysis.

**Awareness of structural inequality.** Similar to the first component of hypothesis five, the regression analysis indicated that a significant amount of the variance in students’ perceived awareness of structural inequality is explained by students’ service experience prior to their participation in a service-learning course, $R^2 = .06$, adj. $R^2 = .05$, $F(3, 194) = 4.16, p < .01$. More specifically, students’ participation in service prior to the University of Maryland appeared to contribute a significant amount of the variance ($p < .01$) in students’ self-perceived awareness of structural inequality. Given this result, it appears that approximately 6% of the variance is explained by prior service experience, resulting in a rejection of the null hypothesis. (See Table 4.10 for a summary of findings.)
Table 4.8

*Correlation Matrix of Diversity Scales and Service Variables*

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appreciation of Difference (A)</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness of Structural Inequality (B)</td>
<td>.78**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Prior to UM (C)</td>
<td>.20**</td>
<td>.21**</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service at UM Prior to Course (D)</td>
<td>.06</td>
<td>.06</td>
<td>.10</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>High School Service Requirement (E)</td>
<td>.15*</td>
<td>.13</td>
<td>.04</td>
<td>.07</td>
<td>--</td>
</tr>
</tbody>
</table>

*p < .05
**p < .01
Table 4.9  
*Summary of Regression Equation for Appreciation of Difference (N=197)*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>β</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$F$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Prior to University of Maryland</td>
<td>.19*</td>
<td>.06</td>
<td>.05</td>
<td>4.20** (3, 194)</td>
</tr>
<tr>
<td>Prior University of Maryland Service</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Service Requirement</td>
<td>.14*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05  
**p<.01

Table 4.10  
*Summary of Regression Equation for Awareness of Structural Inequality (N=197)*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>β</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$F$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Prior to University of Maryland</td>
<td>.21**</td>
<td>.06</td>
<td>.05</td>
<td>4.16** (3, 194)</td>
</tr>
<tr>
<td>Prior University of Maryland Service</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Service Requirement</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01
Summary

This chapter has provided a detailed description of the statistical analyses of the relationships between characteristics of students’ participating in one-semester service-learning courses and their perceived appreciation of difference and awareness of structural inequality. No significant differences were found by race in students’ perceived appreciation of difference as contributed by their participation in a service-learning course. However, significant differences in students’ awareness of structural inequality according to racial group membership were found, with Asian/Asian Americans demonstrating significantly greater awareness of structural inequality than Caucasian/White students. Significant differences by gender were found for both students’ perceived appreciation of difference and awareness of structural inequality, with women perceiving significantly greater appreciation of difference and awareness of structural inequality than men. Hypothesis Three, there is no difference in students’ perceived appreciation of difference and awareness of structural inequality based on the interaction of racial group membership and gender, was not rejected, indicating no significant difference between men and women’s perceptions of their appreciation of difference and awareness of structural inequality as a result of their service experience according to racial group membership. Due to a lack of variance in the number of service hours required in service-learning courses, Hypothesis Four, that there is no significant difference in students’ perceived appreciation of difference and awareness of structural inequality based on the number of service hours required in their service-learning course, could not be analyzed. And, finally, Hypothesis Five, the combination of students’ high school service experiences and their previous college service experiences does not
explain a significant amount of the variance in students’ perceived appreciation of
difference and awareness of structural inequality, was rejected, as the combination of
previous service experiences explained a small (6%) but significant amount of the
variance in both students’ perceived appreciation of difference and students’ awareness
of structural inequality.

The significance of these findings, along with their implications for practice and
future research will be discussed in Chapter Five. Strengths and limitations of the current
study will also be presented.
CHAPTER 5: DISCUSSION

This thesis explored five research questions related to service-learning and diversity. More specifically, the study sought to examine the relationship between characteristics of students participating in one-semester service-learning courses and students’ perceived appreciation of difference and awareness of structural inequality. Hypotheses were set forth to analyze differences in students’ perceptions of their appreciation of difference and awareness of structural inequality based on: (a) students’ racial group membership, (b) students’ gender, (c) the interaction of students’ racial group membership and gender identity, (d) number of service hours required in the course, and (e) students’ previous service experience. Analyses for students’ appreciation of difference and awareness of structural inequality based on number of service hours required in the course were not able to be conducted because there was no reported variation in service hours. All other proposed analyses were conducted. Based on the statistical analyses performed in chapter 4, this chapter will draw general conclusions and observations with regard to the research questions. Further, the limitations and implications for practice of the current study will be discussed. The chapter will conclude with suggestions for future research.

Discussion of Hypotheses

Appreciation of Difference

This set of hypotheses investigated whether students vary by race, gender, the interaction of race and gender, and prior service experience in their self-perceived appreciation of difference. Measures for appreciation of difference were selected from the Curricular Service Learning Survey using O’Grady’s (2000) definition of diversity as the
essential factor that allows an individual to appreciate multiple perspectives and critically examine social issues and structural inequalities. Thus, the first portion of the definition addresses appreciation of difference. Upon the review and agreement of three expert reviewers, 12 of the 23 items on the CSLS were selected to measure appreciation of difference. The appreciation of difference scale yielded a Cronbach alpha of .93. Findings from the appreciation of difference hypotheses varied, indicating that student characteristics may contribute to varying levels of appreciation of difference as related to participation in a one-semester service-learning course.

Recent research has suggested that students’ participation in community service and service-learning leads to greater tolerance and acceptance of racial and cultural groups (Astin & Sax, 1998; Eyler & Giles, 1999), the breakdown of stereotypes (Eyler & Giles), learning about people different from oneself (Jones & Hill, 2001), and the personalization of the “other” (Neururer & Rhoads, 1998). However, none of these studies has attempted to understand within group differences of service-learning participants. Thus, although the current study was exploratory in nature and could not make causal determinations, it drew upon the findings of past research, specifically outcomes related to diversity, and sought to provide insight into students’ within group differences (e.g., race, gender, the interaction of race and gender, and prior service experience) as reported by students who participated in a service-learning course.

When examining the findings of the current study, it is important to note the overall levels of students’ self-perceived appreciation of difference after participation in service-learning courses. Specifically, it is clear that students conclude their service-learning experience with the perception that they have attained low to moderate levels of
appreciation of difference as related to their service-learning experience regardless of their personal characteristics. In fact, the average student response on the appreciation of difference scale fell in the lower mid-range of the scale between *some* and *quite a bit*, with a mean of 2.24 on a 4-point scale. Students, thus, do not report leaving their service-learning experiences with high levels of competence in appreciation of difference. It is essential to keep this in mind throughout the discussion of findings.

In terms of race, it appears that African/African American, Asian/Asian American, and Caucasian/White students do not vary significantly on their self-perceived appreciation of difference by racial group membership as influenced by participation in a service-learning course. Thus, students of different races report leaving their service-learning experience with similar levels of appreciation of difference. Although the nature of this study does not allow for a greater understanding of the basis of this likeness, the lack of a significant difference raises the question of why students exit a service-learning course with similar perceptions of their appreciation of difference. Given that the University of Maryland course catalog includes information about service in the course description, perhaps classes using a service-learning pedagogy are likely to attract similar types of students or individuals with similar perspectives. Or, it may be that service-learning courses serve as a sort of equalizer, helping students with low levels of appreciation of difference to catch up to their peers. For example, students may gain a language with which to describe their life experiences as related to their race, including inequality and racism. Even as this question remains unanswered, findings put forth that students’ race was not related to their appreciation of difference.
Findings about gender suggest that women and men service-learning participants viewed themselves significantly differently in their appreciation of difference as influenced by their participation in service. Analyses indicate that women ($M=28.42$, $SD=7.71$) participating in service-learning courses saw themselves as having higher levels of appreciation of difference than men ($M=25.29$, $SD=9.21$). Recent empirical studies have explored the role of gender in service experiences, citing that women are more likely to serve (Astin & Sax, 1998; Eyler, Giles, & Braxton, 1997) and change their views as related to their service participation (Eyler & Giles, 1999) than men. Similarly recent research by Milem and Umbach (2003) has suggested that first year women may be more likely than their male peers to report their anticipated participation in diversity-related activities in college. However, there have been no studies, to date, that have explored within group gender differences in students’ self-perceived appreciation of difference as related to their service participation.

These results suggest that women’s and men’s perceived levels of appreciation of difference as a result of their service-learning experience are significantly different. Although these findings do not purport cause and effect as related to service participation, they do suggest that either students may come into service-learning courses having developed varying levels of appreciation of difference, they may experience outcomes of the pedagogy in multiple ways, or that women and men have distinct views of their levels of appreciation of difference as related to participation in a service-learning course, resulting in differences in their self-perceptions. These results imply that service-learning professionals must be intentional in working with students at an individual level, striving
to meet the student where he or she is and pushing them to step outside of their comfort zone.

The third hypothesis addressed whether there was a significant interaction of race and gender in students’ self-perceived appreciation of difference. Only Caucasian/White students and Asian/Asian American students could be included for this analysis, because of small gender cell sizes for African/African American students. Findings indicated that there was no significant difference in students’ self-perceived appreciation of difference based on the interaction of race and gender. These findings suggest that women and men of different races leave their service-learning experience with similar perceptions of their levels of appreciation of difference. Although there is no prior research exploring the role of multiple identities in students’ self-perceived appreciation of difference in relation to service-learning participation, previous research by Milem and Umbach (2003) contradicts the findings of the current study. Specifically, Milem and Umbach’s work suggested that women of color, African American women in particular, were more likely than White women or men and men of color to anticipate being involved in diversity-related events and activities at the start of their college career. Nonetheless, the findings from this study suggest that women and men of varying races, namely Asian/Asian American and White/Caucasian, do not report differences in their self-perceived levels of appreciation of difference.

Finally, in the fifth hypothesis, a small but significant amount of the variance ($R^2 = .06, p < .05$) in students’ self-perceived appreciation of difference was explained by their service participation in high school or college prior to enrolling in a service-learning course. Specifically, students’ service participation prior to the University of Maryland
students’ participation in service at the University of Maryland prior to their participation in a service-learning course did not explain a significant amount of the variance in their appreciation of difference.

Research conducted by Milem and Umbach (2003) suggests that students who had participated in service before were more likely to report their intention to participate in service during college than students who had never before participated in service. Astin and Sax (1998) and Berger and Milem (2002) further support these findings, indicating that students with prior service experience are more likely to actually get involved in service opportunities than those students with no previous service experience. Given these findings, it is not surprising that the current study found a relationship between students’ self-perceived appreciation of difference and their prior service experience. A small amount of variance (6%) can be explained by previous service variables in the current study, with 94% of variance predicted by other, unknown factors. Nonetheless, these findings point to prior service experience as a significant factor in fostering students’ perceptions of having increased levels of appreciation of difference.

Overall, it appears that students’ self-perceived appreciation of difference is related only to some of the within group variables explored in this study. Race and the interaction of race and gender did not significantly relate to students’ perceptions of their appreciation of difference; however, students’ gender, participation in service prior to attending the University, and completion of a high school service requirement were all significant factors in their self-perceived appreciation of difference. Thus, within group
characteristics of students participating in service-learning courses appear to relate to
their appreciation of difference.

*Awareness of Structural Inequality*

This set of hypotheses investigated whether students vary by race, gender, the
interaction of race and gender, and prior service experience in their self-perceived
awareness of structural inequality. Items for the awareness of structural inequality scale
were chosen using the second portion of O’Grady’s (2000) diversity definition, which
focuses on the critical examination of social issues and structural inequalities. Like the
appreciation of difference measures, the six awareness of structural inequality items were
selected by a group of expert reviewers and attained a Cronbach alpha of .89, thus
demonstrating the internal consistency of the awareness of structural inequality scale.
Overall, results indicate that students’ self-perceived awareness of structural inequality
varied based on the characteristics of students participating in service-learning courses.

Since research on the relationship between service-learning and awareness of
structural inequality is so scant, the analyses measuring this component of diversity were
designed to provide insight into the relationship between characteristics of students
participating in service-learning courses and students’ awareness of structural inequality.
Specifically, these hypotheses sought to investigate students’ self-perceived awareness of
structural inequality as related to their service experience, focusing on variation by
student characteristics such as race, gender, the interaction of race and gender, and
previous service experience. As in the appreciation of difference component, analyses for
awareness of structural inequality for Hypothesis Four were incalculable as there was no
variation in responses on the item measuring number of service hours in which students
participated for the course. Overall findings of the study suggest that some students’
characteristics are related to their self-perceived awareness of structural inequality.

Like the appreciation of difference component of diversity, awareness of
structural inequality has not been studied to a great extent as related to community
service and service-learning. Recent studies have suggested that participation in service
contributes to students’ understanding of social problems (Astin & Sax, 1998),
understanding of a systemic locus of social problems and social justice orientation (Eyler,
Giles, & Braxton, 1997), and examination of privilege and understanding of systems of
oppression (Neururer & Rhoads, 1998). However, a review of the literature indicates that
awareness of structural inequality has only been studied in ancillary hypotheses, not as
the primary focus of research (Astin & Sax; Eyler, Giles, & Braxton; Neururer &
Rhoads). Despite the lack of focus on the topic, previous research offers support for the
development of higher levels of awareness of structural inequality using differing
terminology, such as “social problems” (Astin & Sax), social justice orientation (Eyler,
Giles, & Braxton), and systems of oppression (Neururer & Rhoads). Although the current
study was exploratory in nature and could not suggest causation, it drew upon the
findings of the scarce research that exists, and sought to provide insight into students’
within group differences (e.g., race, gender, the interaction of race and gender, number of
service hours required, and prior service experience) as related to participation in a
service-learning course.

Similar to the levels of appreciation of difference students reported at the
conclusion of their service-learning experience, students demonstrated low to moderate
levels of awareness of structural inequality as related to their service-learning experience,
with an average score of 2.26 on the 4-point awareness of structural inequality scale. These findings indicate that students did not view themselves as leaving service-learning courses with high levels of awareness of structural inequality. Although the scope of this study does not allow for causation to be determined, these findings suggest that, regardless of how much or how little value is added to students’ awareness of structural inequality through participation in service-learning, they saw themselves as exiting service-learning courses with fairly low levels of awareness of structural inequality.

For Hypothesis One, which examined students’ race, an ANOVA indicated a significant difference ($p < .05$) in students’ self-perceived awareness of structural inequality based on racial group membership. A Fisher’s Least Significant Difference post hoc test reported that Asian/Asian American students reported the highest levels of self-perceived awareness of structural inequality ($M=15.11, SD=4.60$), followed by African/African American students ($M=14.67, SD=3.23$), and Caucasian/White students ($M=12.92, SD=4.30$), with Asian/Asian American students differing significantly from Caucasian/White students ($p<.05$) in their levels of awareness. This difference is particularly intriguing due to the infrequent inclusion of Asian/Asian Americans in previous studies comparing individuals across race. Although the relational nature of the current study does not allow for much understanding of the variation in awareness of structural inequality by race, it is clear that any number of factors could relate to students’ awareness of structural inequality, such as participation in a service-learning course, the environment of advocacy and involvement for Asian/Asian American students at the University of Maryland, or a plethora of precollege factors that are unrelated.
An ANOVA of Hypothesis Two, the awareness of structural inequality by gender, revealed that women ($M=14.56$, $SD=3.96$) participants in service-learning reported having significantly greater awareness of structural inequality as related to their participation in a service-learning course than men ($M=12.48$, $SD=4.77$). A majority of the research related to structural inequality focuses on understanding the difference between service participants and non-participants (Astin & Sax, 1998; Eyler, Giles, & Braxton, 1997), indicating that service participation does in fact increase students’ perceptions of their awareness of societal systems of power and privilege. However, with the exception of a qualitative study by Neururer and Rhoads (1998), which explored the overall experiences of community service participants, there has been little research examining the gender-related differences of service-learning students and almost no research into within group differences among service-learning participants. Although the nature of this study does not allow for a greater understanding of how service-learning courses impact women’s awareness of structural inequality, findings suggest that women report leaving their service-learning experiences with higher levels of awareness of structural inequality.

Results from Hypothesis Three, which examined the interaction of race and gender on students’ perceptions of their awareness of structural inequality, indicated that women and men of different racial groups (i.e., Asian/Asian American and Caucasian/White) did not differ significantly on their self-perceived awareness of structural inequality. More specifically, findings suggest that Asian/Asian American women and men and Caucasian/White women and men reported similar levels of awareness of structural inequality. Given that there has been no research conducted on
students’ perceived levels of awareness of structural inequality and their race and gender interactions, these findings provide an exploratory examination of how multiple identities may relate to diversity. Although there has been no previous research to support these findings, the current study indicates that race and gender interactions do not contribute to the variance in students’ self-perceived levels of awareness of structural inequality.

Finally, for hypothesis Five, students’ prior service experience was found to explain a small amount of the variance of students’ self-perceived level of awareness of structural inequality ($R^2 = .06, p < .05$). Specifically, students reported that their participation in service prior to attending the University of Maryland ($p < .01$) significantly predicted their higher levels of awareness of structural inequality. Although this predicts only a small amount of the variance in awareness of structural inequality, these findings are significant in that they help to better understand factors that may relate to students’ awareness of structural inequality.

Overall, findings from this study suggest that students’ self-perceived awareness of structural inequality was related to individual characteristics, including race, gender, and prior service experience. However, the interaction of race and gender did not relate to students’ perceptions of their awareness of structural inequality. Given these results, it appears that within group characteristics may play a role in students’ awareness of structural inequality as related to their participation in a service-learning course.

Relationship of the Two Dependent Variables

A correlation of the two dependent variables, appreciation of difference and awareness of structural inequality, indicated that the items are closely related ($r = .78, p < .01$). Although this correlation indicates that approximately 60% of the variance is shared
between the two variables, it also points out that roughly 40% of what each variable measures is unique. Thus, appreciation of difference and awareness of structural inequality appear to measure different but overlapping constructs.

Limitations

There were several limitations to this study that must be addressed to fairly ascertain the validity of its findings. Some of these limitations are related to the research design of the study. That is, although the ex post facto with one-group post-test only design is convenient and useful, there are some drawbacks to using this method. First, although appropriate for examining how independent variables relate to a dependent variable, the design limits experimental manipulation due to the previous collection of data, limiting power over extraneous factors (McMillan & Schumacher, 2001). The use of this convenience sample detracts from the overall study, as students may have self-selected to take the course and may represent a homogenous group, rather than a random sampling of students in service-learning courses at the University of Maryland. In fact, due to the overwhelming number of participants that were drawn from honors courses, it is likely that the sample of students is not representative of the average University of Maryland student, as the course likely drew a group of academically gifted students.

The administration of the instrument by class instructors also places limitations on the study. OCSL suggested to instructors that a time allotment of 10-15 minutes be used for completion of the survey. However, instructors may have given varying amounts of time for completion of the instrument, perhaps rushing students if time was not appropriately allowed. Further, because course instructors were responsible for administering the survey to their own classes, a social desirability effect may have
occurred. Given that the survey was completed during the final class meeting of each service-learning course, it is possible that students were concerned that instructors would peruse their completed surveys, influencing final grades; however, separation of completed surveys from consent forms was aimed at protecting confidentiality of respondents, thus alleviating this concern.

The design also presents a limitation in that it is not causal in nature, instead indicating the existence of relationships. More specifically, the ex post facto with one-group only post-test design offers no form of comparison to other treatments and no pre- and post-test; thus, causal conclusions cannot be made (McMillan & Schumacher, 2001). Even more significant, the lack of pre-testing prior to enrollment in a service-learning course detracts from the overall power of the design, as it is not possible to demonstrate that change has occurred. Thus, although the overall design was useful for the nature of the data that were used in the study, design-related limitations take away from the overall strength of the study.

The second type of limitation present in the study concerns the locally-developed instrument that was used. Although having an instrument designed to specifically measure what OCSL sought to understand is an asset of the study, there are some larger psychometric concerns related to the Curricular Service-Learning Survey. Due to the lack of nationally tested instruments measuring the combined constructs of civic engagement, leadership, and diversity, which the Office of Community Service-Learning sought to study, OCSL chose to create a survey that would better suit their needs. Although OCSL drew from previous surveys with national norms, national norms for validity and reliability do not exist for this newly designed instrument. Although administering a pilot
test and expert review of the survey and conducting Cronbach alpha analyses on the items assisted in minimizing this limitation, if the survey did not consistently measure what it was supposed to measure, the findings may not be valid. Further, limitations related to how some items were measured on the survey exist. For example, items related to prior service were measured using a Likert scale; however, it would have been more accurate to ask students to respond in the affirmative or negative, or to assess quantity (e.g., how many hours) and quality of their service experience.

Measurement also inhibited the successful use of data regarding the number of service hours in which students participated. For example, due to the range of the responses used in the scale measuring this information (i.e., 1-25 hours, 26-50 hours, 51-75 hours, 76-100 hours, and more than 100 hours), all of the participants selected the 1-25 hours range. This created a range that was too large to decipher possible variation in students’ community service hours during the course if, in fact, any variation existed. As a result, it was not possible to conduct analyses of the relationship between service hours and appreciation of difference and awareness of structural inequality. Measurement was also a concern in how questions were posed. A number of questions were double-or triple-barreled (e.g., students were asked to what extent their community service experience contributed to their interaction with students of different religious and political backgrounds), requiring participants to respond to two or more questions with only one response. These measurement concerns lessened the strength of the instrument as a tool in assessing students’ self-perceived appreciation of difference and awareness of structural inequality.
The naming of the diversity constructs is another area of measurement that may serve as a limitation in the study. The Curricular Service Learning Survey was designed to measure students’ civic engagement, collaborative leadership, and appreciation of diversity. However, the current study sought to delve more deeply into the appreciation of diversity measures, creating the appreciation of difference and awareness of structural inequality scales with the assistance of expert reviewers and Cronbach alpha analyses. Although both scales reported face validity and high levels of internal consistency (α=.93 and α=.89, respectively), the validity of the scales in measuring what they strive to measure is unclear. This is particularly a concern for the awareness of structural inequality measures, which purport to measure students’ overall ability to critically examine social issues and structural inequalities. However, many of the items appear to focus on students’ ideas about and valuing of solving social problems, using words such as “interest,” “commitment,” and “belief.” The use of such terms does not indicate that the awareness of structural inequality scale is invalid, but instead suggests that the items may not be the most appropriate for measuring one’s knowledge or awareness of structural inequality.

The final measurement-related limitation concerns the stem used to assess how students’ community service experience contributed to their appreciation of difference and awareness of structural inequality. The stem of the question is phrased in an unclear way. In fact, although the instrument strives to measure students’ experiences after participation in a service-learning course, the item inquires specifically about their community service experience, without asking students to consider how their overall service-learning experience has contributed to their ideas. Further, it does not
differentiate between students’ general community service participation and their service-learning coursework. This vague language may have contributed to students’ confusion over what exactly they were being asked to self-assess.

Sampling issues are another area in which there are limitations that may have had an impact on the findings of this study and which deter from the strength of the research. Although the Office of Community Service Learning distributed 478 surveys to seven service-learning courses at UM, only 198 student responses from four courses were usable in this study, providing approximately a 41% response rate. Moreover, this sample included only 12 African/African American students, 37 Asian/Asian American students, 131 Caucasian/White students, 6 Latino/a students, 4 Bi/Multiracial students, and no Native American students. This limited data analysis thus reducing information that could be gathered about the service-learning experiences of African/African American, Asian/Asian American, Latino/a, Native American, and Bi/Multiracial students.

These sampling issues further contributed to limitations in the analyses conducted on data attained from the Curricular Service-Learning Survey. Specifically, due to the lack of Latino/a, Native American, and Bi/Multiracial students, it was necessary to exclude these groups, as their cell sizes were too small to conduct valid analyses. Similarly, the three students who identified as transgender were also excluded from analysis, as the cell size for this group was too small. As a result of these challenges in sampling, statistical analyses were manipulated in order to attain the most accurate information possible about the sample. Specifically, this study employed multiple one-way ANOVAs and one two-way ANOVA to allow for each unique group to be included when possible (i.e., examining Asian/Asian American and Caucasian/White students
when considering race by gender interaction, or excluding Native American, Latino/a, and Bi/Multiracial students in race analyses). Although this technique was effective in teasing out some of these differences, it may have diminished the power and contributed to Type I error of the analyses, as a two-way ANOVA including hypotheses one, two, and three would have been more desirable.

The makeup of the sample in terms of academic course is also a limitation to the study. That is, Gemstone 100, the largest course in the sample, provided nearly 75% of the data used in analyses. This class, along with two other first year classes included in the sample, was useful in offering a large portion of the total sample; however, the classes provided the self-report of only freshman students. Given that the University of Maryland is a traditional aged institution, it is likely that students in these courses were within the 18 to 22 year old age range, and perhaps even lower given that a large portion of the sample were first-year students, potentially limiting the inclusion of students who perceived themselves to be at more mature levels of appreciation of difference and awareness of structural inequality. In fact, it is likely that the seven students from the 200-level Educational Policy and Leadership course included in the sample were the only non-first year students included in the study. Further, students participating in the study through Gemstone 100 and Honors 100 were likely not typical University of Maryland students, as each of the programs in which these courses are required are highly selective honors programs.

Cumulatively, these constraints limit the conclusions that can be made about the data set; however, they do not negate the richness of the information attained through the Curricular Service-Learning Survey.
Implications for Practice

Although the limitations described above must be taken into account when examining the study, there are a number of implications for practice that the findings of this research suggest. First and foremost of these is the necessity to take students where they are developmentally upon entering a service-learning course. Students come to their service-learning experiences with multiple identities and life experiences, including but not limited to race, gender, and prior service experience. Many previous studies have alluded to the relationship between service and diversity or identified it in ancillary analyses (Astin & Sax, 1998; Berger & Milem, 2002; Eyler & Giles, 1999; Neururer & Rhoads, 1998); however, few researchers have sought to connect service-learning and diversity intentionally. The results of this study provide ammunition in demonstrating the importance of working with students at their own developmental level, taking into account multiple identities and life experiences, in order to increase their appreciation of difference and awareness of structural inequality. Given these findings, student affairs practitioners can continue their efforts in creating educationally meaningful and critically reflective classroom experiences through which students with a variety of backgrounds and experiences are encouraged to consciously connect their service participation and understanding of people unlike themselves (O’Grady, 2000).

This study also has implications for the mission of institutions of higher education. Frequently, colleges and universities purport that service and diversity are essential aspects of learning for college students. The current study raises the question of how service-learning may contribute to these goals, given that students who participated in service prior to a service-learning course appeared to leave the course with higher
levels of appreciation of difference and awareness of structural inequality. Specifically, current findings beg the question: does students’ participation in service at institutions of higher education contribute to their self-perceived levels of appreciation of difference and awareness of structural inequality in the same way that their service experiences prior to attending the University did? Further, are students who see themselves as having higher levels of appreciation of difference and awareness of structural inequality attracted to service-learning courses and community service more than those students with lower self-perceptions of their appreciation of difference and awareness of structural inequality? Although the current study does not demonstrate how service-learning contributes to students’ appreciation of difference and awareness of structural inequality, it suggests that service-learning pedagogy may be an innovative tool in furthering the institutional mission of service and diversity.

The current study also offers important implications for the definition of diversity that is frequently used. In this study, the construct of diversity was defined using two facets: (a) appreciation of difference and (b) awareness of structural inequality. This use of the definition sets the current study apart from many others by moving past the physical aspects of diversity to include issues of power and privilege in a way that much of the current literature has failed to consider. Thus, it suggests a more pervasive sense of diversity that must be considered when examining how service-learning opportunities contribute to students’ understanding of diversity. Including issues of power and privilege in working with students will help practitioners and students alike to gain a deeper appreciation of difference and greater awareness of structural inequality both on and off-campus. In providing opportunities to enhance students’ understanding of diversity, it is
likely that students will gain insight into themselves and the world around them, helping them to succeed in a diverse and dynamic world (Milem, 2003).

Finally, this study also has implications for the Office of Community Service learning in their role as advocates for service-learning pedagogy at the University of Maryland and practitioners in similar roles at other Research I institutions. The limitation of findings related to service hours suggests that OCSL may need to be more proactive in working with faculty, staff, and students in creating guidelines for service-learning courses, as students appear to engage in no more than 25 hours of service in these courses. That is, instructors could benefit from understanding baseline levels of service participation that constitute meaningful service experiences; for example, by creating a well-defined set of requirements for what is considered to be true service-learning. Further, OCSL could be more proactive in supporting instructors to design educationally meaningful and critically reflective service-learning experiences that integrate conversations around issues of diversity. The office should continue striving to assess the value of service-learning in working with undergraduate students, modifying and revising the current survey to attain more accurate and precise results.

Directions for Future Research

Broadly considered, there are a number of directions that remain unexplored when considering service-learning and diversity. The first step in understanding the complexity of service-learning, diversity, and the outcomes associated with both constructs is defining them into clear and inclusive definitions. As was discovered in the literature review, recent studies (Antonio, 2001; Berger & Milem, 2002; Globetti, Globetti, Brown, Smith, 1993; Jones & Hill, 2001; Neururer & Rhoads, 1998) tend to consider diversity in
terms of race, excluding differences in sexual orientation, religion, gender, and social class, to name a few. Therefore, future research should be directed towards understanding the construct of diversity more comprehensively and validly. Due to the complexity of diversity and the importance of the language used in studying it, it is essential that future research use valid and reliable measures to assess this multifaceted construct.

In tandem with this exploration of diversity’s definition, it is also important to gather informatively rich results from studies of diversity and service-learning. To gain such data, it may be necessary to step away from the quantitative research paradigm to delve deeper into the connection between service and diversity using qualitative research methods. Although qualitative research is not generalizable to the population (McMillan & Schumacher, 2001), understanding college students’ experiences with service-learning and their appreciation of difference and awareness of structural inequality will provide a plethora of information regarding outcomes and experiences. Thus, qualitative research, such as Jones & Abes’ recent (2003) study of students’ appreciation of difference in working with individuals living with HIV/AIDS could be used to create quantitative measures. That is, these findings could then be operationalized, in quantitative form, to create measures of service-learning outcomes with an emphasis on diversity.

To better understand service-learning pedagogy, it is necessary to study the outcomes of service-learning. Across time, multiple studies have suggested that service-learning pedagogy is a valuable tool in working with students, as it allows students to explore diversity (Eyler & Giles, 1999; Eyler, Giles, & Braxton, 1997; Neururer & Rhoads, 1998), gain life skills (Astin & Sax, 1998), and increase self-concept (Berger & Milem, 2002). However, few studies have provided a comprehensive picture of the
outcomes related to service-learning participation. Moreover, current research has provided little insight into the amount of service participation that would be required to attain any potential outcomes. Future research could investigate the pedagogy more thoroughly, including level of participation required to attain successful outcomes, assisting instructors and student affairs practitioners in their quest to create better, more effective service-learning opportunities.

Additional studies could also explore the causal relationship between service-learning and diversity. To date, there have been no studies that attempt to uncover what aspects of service-learning enhance students’ appreciation of difference and heightened awareness of structural inequality. Questions, such as “how does service-learning lead to students’ greater appreciation of difference and awareness of structural inequality?,” have been long neglected due to the difficulty in establishing cause and effect through research on such topics. However, in coming to a better understanding of how service-learning experiences contribute to students’ ideas about diversity, future research could provide guidance to practitioners working to educate students across difference by clarifying essential areas of comprehension and experience.

A longitudinal study of service-learning and diversity could offer additional information about the lasting effects of service-learning on students’ understanding of diversity. The results from research Hypothesis Five regarding students’ prior service experience suggest that students with service experience prior to their participation in the service-learning course viewed themselves as having higher levels of appreciation of difference and awareness of structural inequality. In a similar way, longitudinal research examining how students’ diversity-related attitudes shift over time after having
participated in a service-learning course would provide an in-depth look at how effective this pedagogy is in affecting deeply seeded changes in students’ ideology about diversity.

In addition to broadening what is studied about service-learning and diversity, there are also a number of research designs, or how service-learning is studied, that would provide a more holistic view of service-learning pedagogy. The most valuable of these is the use of an experimental design in studying service-learning. Using a true experimental design would allow for the random assignment of participants to various levels or groups within the study (McMillan & Schumacher, 2001), allowing for the generalization of research to a larger population (Borg & Gall, 1989) and providing a more rigorous study of service-learning and diversity. This design also allows for the comparison of multiple groups, such as service-learning and non-service-learning participants, in order to better understand the construct being studied. By continuing to expand upon the methods by which service-learning is explored, an increasing number of insights regarding the pedagogy will be uncovered, increasing the credibility of service-learning findings overall (McMillan & Schumacher).

Future research would also benefit from the enhancement of current instruments, such as the Curricular Service-Learning Survey, in effectively measuring service-learning and diversity. Numerous changes could be made to more accurately assess students’ self-perceived appreciation of difference and awareness of structural inequality. For example, an open-ended question asking respondents to indicate the number of service hours completed in the semester would allow for a more accurate assessment of how many service hours students participated in during their service-learning course. Future studies would also benefit from the inclusion of more detailed student and course
information on the instrument, including academic class standing, number of required
service hours for the course, social class, engagement in service outside the course, and
the nature of service participation both for the course and any additional service
participation (i.e., service with direct personal contact as compared to service without
personal contact). Enhancements such as these would add to the body of knowledge that
can be gained from studying service-learning and how it relates to students’ appreciation
of difference and awareness of structural inequality.

An assessment of who is serving would also be of use in future research seeking
to understand diversity as related to service-learning. That is, current research has failed
to ascertain the level of privilege of students who serve. Logic suggests that privileged,
rather than underprivileged, individuals may be more likely to serve in unpaid service
opportunities, as underprivileged students may need to work to afford college. However,
this hypothesis has not been tested to determine which students participate in service-
learning courses. Nonetheless, this uncertainty raises the question of who is included in
the sample. Future research would benefit from analyses that assess levels of privilege in
service-learning students in an effort to better understand who is serving and who is being
excluded from service-learning opportunities.

Finally, and perhaps most importantly, future research must continue to become
more inclusive of the students represented in the sample. As discussed in the review of
literature, past studies have defined diversity in terms of race, focusing generally on
African American and White students; however, researchers must continue to create a
sample inclusive of the student population on college campuses, studying bi/multiracial
students, along with various sexual orientations, religions, abilities and disabilities, and
other forms of diversity. In creating a more comprehensive sample, researchers will be able to tap into the wealth of information that students of varying backgrounds and experience can offer regarding service-learning and diversity.

Summary

The purpose of this study was to explore the relationship of students’ within group differences and their self-perceived appreciation of difference and awareness of structural inequality as related to participation in a one-semester service-learning course. The research used previously collected data from the Office of Community Service Learning’s *Curricular Service-Learning Survey* to examine variation in students’ self-perceived appreciation of difference and awareness of structural inequality based on race, gender, the interaction of race and gender, and previous participation in service. Findings from these hypotheses suggest that students’ gender and previous service experience contribute to their overall perceptions of their appreciation of difference and awareness of structural inequality, while race, gender, and previous service experience contribute to their self-perceived awareness of structural inequality. This study only began to explore the relationship between service-learning participation and students’ perceptions of their appreciation of difference and awareness of structural inequality. However, it provides insight into the within group variance that students demonstrate at the conclusion of a one-semester service-learning experience.
Service-Learning Survey Informed Consent Form

I state that I am over 18 years of age and wish to participate in a program of research being conducted by Dr. Barbara Jacoby and the staff of the Office of Community Service-Learning at the University of Maryland College Park.

The purpose of this research is to examine the relationship between student experiences, attitudes, and outcomes in relation to curricular, cocurricular, and Federal Work-Study funded service activities. Specifically, the Office of Community Service-Learning would like to learn more about students’ development of civic engagement, collaborative leadership, and appreciation of diversity as a result of their experience in service-related activities.

The procedure of this Service-Learning Survey includes my completion of a survey (attached) which will take approximately ten minutes.

All information collected in this study is confidential to the extent permitted by law. I understand that the data I provide will be grouped with data others provide for reporting and presentation and that my name will not be used. Additionally, I understand that my responses will not be provided to my service-learning group leader, service-learning course instructor, or Federal Work-Study employer or supervisor. I understand that my responses will not affect my group standing, course grade or performance evaluation.

I do not foresee any risks associated with my participation in the Service-Learning Survey.

The Service-Learning Survey is not designed to benefit me directly, but to help the Office of Community Service-Learning and its investigators learn more about the student learning and development outcomes of service-learning. I am free to ask questions or withdraw from participation at any time and without penalty.

I understand that I may contact, Dr. Barbara Jacoby, Principal Investigator of the Service-Learning Survey with further questions. She can be reached at the Office of Community Service-Learning, 1120 Stamp Student Union, College Park, Maryland 20742; 301-314-7253; or, at bjacoby@umd.edu. If I have any questions about my rights as a research subject or wish to report a research related injury, I may also contact the Institutional Review Board Office at University of Maryland, College Park, Maryland 20742 or by email at irb@deans.umd.edu or telephone at 301-405-4212.

Name of Participant: ________________________________
Signature of Participant: ________________________________
Date: ____________________
Curricular Service-Learning Survey: 2003-2004
The University of Maryland would like to better understand the impact that service-learning has on students, particularly how this experience has influenced your perspective on learning, your view of service, and your perspective of working in a diverse community. For each question, check the box indicating your response.

Name of the service-learning course in which you are enrolled:  
The course code and number (e.g., EDCP 317):

Name of agency with which you worked:

1. Please indicate your level of agreement with each statement about your service-learning course.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would not have done community service work this semester if I had not done it through this course.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The community service component of this course helped me to see how the subject matter I learned can be applied in the real world.</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The community work I did through this course helped me to better understand the course content (e.g., lectures and readings).</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The community work I did in this course helped me to develop my academic writing skills.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>The community work I did in this course helped me to develop my critical thinking skills.</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>I feel I would have learned more from this course if more time was spent in the classroom instead of doing community work.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>The course instructor helped me make connections between the service activity and the course content.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>The course readings helped me make connections between the service activity and the course content.</td>
<td>☐</td>
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</tr>
<tr>
<td>The agency supervisor helped me make connections between the service activity and the course content.</td>
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</tr>
<tr>
<td>The idea of combining service in the community with University coursework should be practiced in more classes at the University of Maryland.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>The community service component of this course helped me clarify my professional goals.</td>
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<td>☐</td>
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<td>☐</td>
</tr>
</tbody>
</table>

2. Please indicate your level of agreement with each statement about your participation in service aside from this course and this semester.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before I came to UM, I participated in community service activities.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I participated in community service at UM prior to this experience.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Before I graduate from UM, I anticipate participating in community service activities again.</td>
<td>☐</td>
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<tr>
<td>After graduation from UM, I anticipate participating in community service activities.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have used the Office of Community Service-Learning website (<a href="http://www.csl.umd.edu">www.csl.umd.edu</a>).</td>
<td>☐</td>
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<tr>
<td>I have visited the on-campus Office of Community Service-Learning (1120 Stamp Student Union).</td>
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<tr>
<td>My high school had a community service requirement for graduation.</td>
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</table>

If yes, how many hours were required:

(over)
3. To what extent has your community service experience contributed to your:

<table>
<thead>
<tr>
<th></th>
<th>Very Little</th>
<th>Some</th>
<th>Quite A Bit</th>
<th>Very Much</th>
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</thead>
<tbody>
<tr>
<td>interacting with students of a race or ethnicity different than your own</td>
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<tr>
<td>interacting with students of different religious or political backgrounds</td>
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<tr>
<td>understanding of people from races/ethnicities different than your own</td>
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<tr>
<td>understanding how your race(s) shape your identity</td>
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<tr>
<td>understanding diverse cultural, political and intellectual views</td>
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<tr>
<td>willingness to seek out new experiences</td>
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<tr>
<td>awareness that systems can disadvantage groups of people</td>
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<tr>
<td>knowing/articulating your priorities in life</td>
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<tr>
<td>acting in ways consistent with your values</td>
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<tr>
<td>committing to activities that are important to you</td>
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<tr>
<td>ability to work well with others</td>
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<tr>
<td>ability to foster a shared vision when working with others</td>
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<tr>
<td>respecting opinions other than your own</td>
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<tr>
<td>comfort level with conflict</td>
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<tr>
<td>ability to work in changing environments</td>
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<td>openness to new ideas</td>
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<tr>
<td>ability to learn from the community what its needs are</td>
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<tr>
<td>ability to examine social problems in order to address root causes as well as immediate needs</td>
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<tr>
<td>interest in addressing national or global social problems</td>
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<tr>
<td>commitment to lifelong involvement in the community to address social problems</td>
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<tr>
<td>belief that individuals or groups doing community service can solve social problems</td>
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<tr>
<td>belief that individuals or groups taking political action can solve social problems</td>
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<tr>
<td>belief that it is your responsibility as someone who lives in the community to be involved in solving the community’s social problems</td>
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</table>

What is your racial background?
- African/African American
- Asian/Asian American
- Caucasian/White
- Latino/a
- Native American
- Bi/Multi-racial
- Other

What is your gender?
- Male
- Female
- Transgender

What is your age?
- 17 or less
- 18-19
- 20-21
- 22-23
- 24 or older

What is your place of residence this semester?
- Residence hall
- Commons/Courtyard
- Fraternity/sorority
- Your family’s home
- Other off-campus housing

How many college credits have you earned?
- 1-29 (freshman)
- 30-59 (sophomore)
- 60-89 (junior)
- 90-120 (senior)
- more than 120

What is your current college(s)?
- AGNR
- ARCH
- ARHU
- BMGT
- BSOS
- CMPS
- L & S
- ENGR
- BLHP
- JOUR
- LESC

How many hours/week do you work?
- None
- 1-10
- 11-20
- more than 40

Where did you do most of your service for this class?
- On Campus
- Prince George’s County
- Montgomery County
- Washington, DC
- In or near Baltimore
- Other

Approximately how many hours of service have you completed this semester in this course?
- 1-25 hours
- 26-50 hours
- 51-75 hours
- 76-100 hours
- more than 100 hours
REFERENCES


Community Service-Learning Web site:

http://www.csl.umd.edu/missionstatement.html

Office of Institutional Research (2003, September). Who’s on campus now? From

http://www.oirp.umd.edu/WOCN/all.cfm


