A CRITICAL ANALYSIS OF MULTICULTURAL SERVICE LEARNING

By

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A DISSERTATION

Submitted to
Michigan State University
In partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

K-12 Educational Administration

2012
ABSTRACT

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Service learning is a widely accepted method for preservice teachers to gain knowledge about the communities they may someday serve. Critical multicultural service learning is commonly used to help preservice teachers explore issues of inequality, power, and manifestations of social reproduction in school systems, and is intended to foster awareness about culture, race, and diversity. Critics of service learning express concerns about the high expectations associated with the practice and argue that service learning may reinforce the attitudes and beliefs it is designed to eliminate. This study was designed to gain a better understanding of what positive or negative factors influenced preservice teachers’ multicultural service learning experience, if preservice teachers were able to connect course context to their service learning experience, and what pedagogy had the greatest impact on their ability to make those connections. These dimensions were explored through quantitative analysis using survey data that was completed by 324 students who were enrolled in 18 Teacher Education 250 sections at Michigan State University. The results of this study indicate that preservice teachers benefit directly from their service learning experiences, and that multicultural service learning is a valuable tool for teacher educators. The results from this study can help teacher educators better understand the impact of multicultural service learning on preservice teachers’ perception of power, race, injustice, diversity, and a desire or lack of desire to work in under resourced schools. The findings from this study support critical multiculturalism, critical pedagogy, and critical curricula in teacher education programs.
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DEDICATION

This dissertation is dedicated to At-Risk youth and all those committed to making a difference in education. I would also like to dedicate this dissertation to my husband, Michael, my children, grandchildren, siblings, nieces and nephews.
ACKNOWLEDGEMENTS

I would like to thank my husband Michael and our children for encouragement and support throughout this dissertation process. I am also grateful for the guidance and love of my parents Harrison and Annie Mae Evans who are with me in spirit. In addition, I would like to thank my advisor Dr. Christopher Dunbar and my dissertation committee members: Dr. Dorothea Anagnostopulos, Dr. Dorinda Carter-Andrews, and Dr. Reitumetse Mabokela. Lastly, I would like to thank my former Te 250 student Zack, whose’ service learning experience and following statement, inspired me to explore the effects of multicultural service learning on preservice teachers.

Through this diverse array of assistance that I provided, I was able to relate a great deal of material observed to topics discussed in class. The most obvious of this was social reproduction. When social reproduction was first discussed in class it did not initially strike me as one hundred percent creditable. Through service learning there were events that made me able to disprove this theory that I once had (Zach/Te 250 student).
This dissertation was inspired by my experience as an instructor for the Michigan States University Teacher education 250 (Te 250) course. The course focused on diversity issues involving race, class, special needs, gender, sexual orientation, language and culture and introduced prospective teachers to the way in which social inequality affects schooling and how schooling affects and/or reproduces social inequality. TE250 is a required course for students who apply for admission to the teacher education program. In addition to readings, classroom discussions, activities, and a variety of assessment practices, students are embedded in real world situations to help them connect what they are learning in class to what happens in schools and society. For example, tutoring students with academic needs in K-12 classrooms or in after school programs are two options. Instructors are responsible for teaching their own sections. They meet as a team to discuss key concepts, teaching strategies, readings and other materials. The course coordinator works with instructors on readings and assignments and provides mentoring on all aspects of the experience, including pedagogy.

The purpose of the current study was to evaluate TE250 preservice teachers’ multicultural service learning experiences and examine how service learning affects preservice teachers’ understanding of the importance of culture, power, race and diversity as they work with children and youth in diverse settings, usually for the first time. Another objective of this study was to understand how multicultural service learning experiences influence preservice teachers’ intentions to teach in diverse settings in the future. In addition, study’s’ purpose was to understand more about factors that impact preservice teachers’ multicultural service learning experiences and to identify predictors that might reveal preservice teachers’ decisions to consider
teaching in diverse settings. The current study moves beyond past research by identifying what preservice teachers learn from their multicultural service learning experience, how they learn it, and how this experience impacts their beliefs about teaching in under-resourced schools. Drawing from critical multicultural education theory, this study examined how preservice teachers connect course content to real life when working with students from historically disadvantaged backgrounds through a service learning project within marginalized academic communities and classrooms.
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Chapter 1. Introduction

Overview of the Study

This study examined how multicultural service learning impacts preservice teachers’ understanding of the importance of culture, power, race and diversity as they work with children and youth in diverse settings, usually for the first time. The subjects for this study came from multiple sections of Teacher Education 250 (TE 250): Diversity, Power and Educational Opportunity. TE 250 is a semester-long social foundations class offered by the teacher preparation program at Michigan State University, and is a required course for all teacher education majors. The TE 250 students engage in a 20-hour service learning commitment to work in a multicultural environment with children and youth in local area schools and organizations.

Drawing from critical multicultural education theory, this study examined how preservice teachers connect course content to real life when working with students from historically disadvantaged backgrounds through a service learning project within marginalized academic communities and classrooms. The purpose of this study was to understand more about factors that impact preservice teachers’ multicultural service learning experiences and to identify predictors that might reveal preservice teachers’ decisions to consider teaching in diverse settings.

Much of the literature on preservice teacher service learning has either emphasized the risk and harm that is associated with poorly organized programs (Root et al., 2005), or the benefits associated with interactions in diverse settings (Sleeter, 2000). My study sought to move beyond prior discussions and examine what preservice teachers learn from their multicultural service learning experience, how they learn it, and to better understand the challenges students
encountered during their service learning experience. This study was premised on understanding
the impact of multicultural service learning on preservice teachers’ service learning experience,
factors that influenced students’ service learning outcomes, and which activities had the greatest
impact on preservice teachers’ ability to connect course content and real life.

Understanding the complex factors that influence preservice teachers during their
multicultural service learning experience is important, because these experiences are designed to
enhance preservice students’ desire and ability to teach in diverse settings. To explore this
learning process, I used quantitative analysis to explore the perceptions of multicultural service
learning using survey data that was completed by 324 students who were enrolled in eighteen
Teacher Education 250 sections at Michigan State University.

Statement of the Issue

The literature indicates that proponents of service learning have a twofold challenge
when defending service learning as a sufficient tool to prepare preservice teachers as advocates
for social change. First, there is the question of whether service learning promotes or reduces
prejudice (Butin, 2005). Some in the field argue that, service learning defeats its purpose by
reinforcing the attitudes and beliefs it is designed to eliminate; they question whether service-
learning can cause more harm than good (Kendall & Associates, 1990). For example,
Rimmerman (2009) suggested, “Students may be indelibly imprinted to their prejudices,
relationships between the college and service agencies may be damaged, and those receiving the
services that students provide could come to harm” (p. 20).

Second, some critics have expressed concerns about the serious disadvantages derived
from poorly organized service learning programs; they believe that serious challenges to the use
of service learning and its institutionalization exist (Rimmerman, 2009). Critics argue that
service learning does not happen by itself; and much can go wrong if it is not done correctly (Butin, 2005). According to Butin (2005), “Service learning is an experiential learning experience attached to a course, therefore it requires additional preparation and attention to process, not all students are immediately, or gracefully, transformed by their experiences” (p. x). Rimmerman (2009) explained, “There may be flaws in the structure and nature of courses that focus on service to the extent that they fail to connect service appropriately to issues of democracy, politics, and citizenship” (p. 80).

Proponents of service learning recognize the necessity of combining service learning and multicultural education; they agree that multiculturalism is paramount to effective service teaching (Sleeter, 2000). Supporters view multicultural service learning as a means to adequately address issues of power, race, and diversity (Butin, 2005). Experts believe multicultural education fosters regard for human dignity, respect for cultural diversity, support for cultural pluralism, and furtherance of social justice (Banks, 2001; Bennett, 1999; Boyle-Baise, 2002; Sleeter, 2000). Due to the uncertainties of service learning, educators charged with its implementation are seeking recommendations, or detailed steps, to follow to achieve success with service learning at their institution (Root et al., 2005). To date, however, there has not been sufficient agreement among those who have researched service learning to provide solid guidance.

**Purpose of the Study**

The purpose of this work was to analyze how multicultural service learning affects preservice teachers’ understanding of the importance of culture, race, diversity, and power. I expected to learn if and how the cultural backgrounds of preservice teachers shape their multicultural service learning experience outcomes. I analyzed to what extent multicultural
service learning increased critical thinking about inequalities among preservice teachers as it pertains to their teaching practice, as well as whether multicultural service learning exposes social inequality within school cultures. I looked at the ways in which the cultural features of an organization and organizational practices affect multicultural service learning outcomes. In addition, I investigated the impact of multicultural service learning on students’ ability to connect course context and real-life experience, along with the factors influencing a preservice teacher’s willingness to work in under resourced schools.

**Question/Argument**

1. Did preservice teachers report that their attitudes and knowledge about diversity issues changed as a result of service learning experience?

2. What activities did preservice teachers report impacted their learning the most during their service learning experience?

3. What individual differences between themselves and their students did student teachers report contributed often to challenges they encountered during their service learning experience?

4. Was there a difference in the amount that student teachers reported individual differences between themselves and their students contribute to challenges they experienced during service learning, depending on the preservice teachers’ gender, and the placement grade?

5. Did preservice teachers’ service learning experience influence their willingness to work in under resourced schools?

**Significance of the Study**

This study examined the impact of multicultural service learning as it pertained to preservice teachers, and explored which factors had the greatest influence on preservice teachers’
multicultural service learning outcomes. My research was intended to extend existing knowledge about the importance of multicultural service learning as a method to foster preservice teacher’s understanding of the importance of culture, race, diversity, and power. This information is particularly useful to the study of multiculturalism as it pertains to the development of teacher education critical multicultural service learning programs.

Understanding the impact of multicultural service learning on preservice teachers’ desire or lack of desire to work in diverse environments may lead to a revisit of critical pedagogy and critical multiculturalism in teacher education service learning curricula. Although the value of multicultural education is well established within the profession, gaining a better understanding of students’ learning outcomes as a result of multicultural service learning can serve as a tool to better understand the needs within multicultural education to improve multicultural education and service learning. The results of this study can provide insight into the benefits of understanding the role of multiculturalism as it pertains to preservice teachers service learning experiences in ways that are applicable to preparing teachers to teach diverse populations.

In essence, service learning is an intricate part of teacher education. Teacher educators offer a number of reasons for including service learning in their programs Root et al. (2005) noted that 60% of teacher educators used service learning as a means to familiarize and connect candidates with the community, and 58% believed that service learning increases candidate sensitivity to diversity and contributes to candidates’ personal and social development. Over half of all respondents also noted the value of service learning in preparing candidates to develop habits of critical inquiry and reflection. Service learning is widely considered vital to excellence in teacher education, and it is therefore vital to be implementing it in the most effective ways
possible. This study will provide additional insight into how to maximize the multicultural service learning experience for preservice teachers.

Organization of This Study

This dissertation is organized into five chapters. Chapter 1 is an introduction to the study. In this chapter, the problem statement and significance of the study is outlined, along with a detailed descriptive conceptual framework and the five questions that guided this inquiry. Chapter 2 consists of a literature review that focuses on the need to situate service learning within a framework of critical multiculturalism as a means to help preservice teachers understand issues of power, culture, race and diversity. Chapter 3 details the research methodology of the study including participants, data collection process, and analysis procedures.

Chapter 4 provides the data analysis and findings from the TE 250 multicultural service learning survey. The results of this survey provide a basis for evaluating preservice teachers’ critical thinking about how culture, power, race, and diversity impacts teaching practice. Chapter 5 examines the theoretical issues that are relevant to multicultural education and service learning. Chapter 5 also includes a discussion of the implications, conclusion of the study, and suggestions for future research.
Chapter 2. Literature Review

Introduction

This literature review was focused on understanding how multicultural service learning increases the critical thinking skills of preservice teachers with regard to the ways in which power, culture, race, and diversity affect teaching practices. The literature reviewed for this study captures the significance of multicultural service learning as a tool to help preservice teachers make connections between the lessons learned in the classroom and their application in the real world. The chapter begins with a discussion of the conceptual framework that undergirds this study. Informed by Butin’s (2005) theory of critical multiculturalism, this study examined the role of critical multiculturalism within service learning settings designed to enhance the preparation of preservice teachers. Following a discussion of the theoretical framework, the review explores prior applications of service learning in teacher education and preservice teacher preparation. Elements of strong program design and common pitfalls are discussed. The chapter concludes with a discussion of the gaps that exist within the current body of literature that intersects service learning and critical multiculturalism and extends the rationale for this work.

Conceptual Framework

Butin’s (2005) theory of critical multiculturalism posits that critical multiculturalism recognizes and respects all diverse groups, and acknowledges and values their cultural differences. The essence of the theory is that the concept of multicultural education is the ability to interact with others from different cultural backgrounds in ways that transcends all barriers and stereotypes. Butin (2005) acknowledged that service learning without appreciation for diversity risk creating an environment that could be harmful to all stakeholders. According to
Butin (2005), placing privileged white preservice students in a diverse service learning setting without exposure to multicultural education could result in the inadvertent reinforcement of stereotypes held by the students, thereby defeating the purpose of service learning, which is designed to dispel stereotypes.

Butin’s (2005) theory of critical multiculturalism is the most recent in an evolving set of theories that have focused on multiculturalism. Early African American scholarship and the ethnic studies movement are important historical foundations of the multicultural education movement. Baker (1973), Banks (1991), Gay (1992), and Grant (1977) have each played significant roles in the formulation and development of multicultural education in the United States. “Baker developed one of the first multicultural teacher education programs in the United States while teaching at the University of Michigan, Ann Arbor” (Banks, 1996, p. 39).

According to Banks and Banks (2004), Multicultural education as a conceptual framework emerged in the 1970s in an attempt to provide teachers with the necessary knowledge and skills to teach diverse learners. Multicultural education has been applied to a variety of settings and pedagogies including: adult education, early childhood education, higher education, international education, teacher education, education policy, research policy, and culturally responsive pedagogy (Ball, 2000). Teachers using the culturally responsive method of instruction “must be capable of responding to the ways that culture influences the behavioral and mental ecology of the classroom” (Irvine, 2003, p. 67). Culturally responsive pedagogy and culturally relevant teaching are used interchangeably; both terms imply that the teaching approaches include elements of students’ culture (Irvine, 2003). The Center for Urban Learning/Teaching and Urban Research in Education and Schools (CULTURES) housed in Emory University was founded by Jacqueline Jordan Irvine to address the needs of a diverse
public school system in the greater Atlanta area. According to Irvine (2003), “The CULTURES program assisted approximately 120 practicing elementary and middle school teachers to work effectively with culturally diverse culturally responsive students and to enhance the quality of teaching and learning in their urban schools” (p. 79). As a result of CULTURES training, teachers were able to turn around their failing schools and create learning communities for students of color (Irvine, 2003).

Service learning is grounded in the theory of “reciprocity beneficial, with meaningful service being provided to the community and meaningful learning experience provided for the student” (McAleavey, 1998, p. 10). The intersection of this theory with the theory of critical multiculturalism creates a framework by which effective service learning programs for preservice teachers can be developed. Research supports the necessity of multicultural service learning experiences as a method to understand the importance of race and diversity. Howard (2010) argued, “Critical multicultural education places additional emphasis on structural inequities and calls for radical social and economic reconstruction” (p. 46). Service learning is well-suited to accomplishing this goal, and well-designed service learning programs can advance multicultural understanding in education.

Making the Case for Multicultural Education

This country has been a diverse society since Europeans and Africans arrived centuries ago, and the diversity has continued to grow. The recent United States 2010 census reported 32% of the nations’ population is multiracial (ABC News, 2011). Race and diversity are impossible to ignore when educating students, yet there is an abundance of evidence supporting the seriousness of inequality in education. African American men have suffered tremendously from inequality in education. They are among the highest group to drop out of school and they
are disproportionately incarcerated; nearly one in four black male dropouts are incarcerated or institutionalized, compared to one in 14 White, Asian, or Hispanic dropouts. The majority of African American prisoners did not graduate from high school. Young female dropouts were nine times more likely to become single mothers than young women who earned college degrees (Dillon, 2009). The high school dropout rate, prisoner population, single mothers, and unemployment are all connected to race and education. According to Dillon (2009), dropouts between the ages of 16 to 24 had a 54% jobless rate, whereas high school graduates in the same age group had a 32% jobless rate. Those with a degree had a 13% unemployment rate. Statistics were worse for young African American dropouts at 69% compared to 54% for whites and 47% for Hispanics.

Although there is an abundance of evidence supporting the seriousness of inequality in education, there is little research or evidence of school systems directly approaching the question of how race, race relations, and racism affect learning. Race underlines all that is necessary to succeed in this country (Dillon, 2009), yet according to Howard (2010), educators don’t question the role of race in achievement outcomes. Howard (2010) argued that “A more detailed analysis of race, racism, and each of their manifestations is long overdue if viable interventions are to close racial achievement gaps in U.S. schools” (p. 91). In essence, multicultural education is crucial for addressing issues of power, race, discrimination, inequality, and social reproduction. According to Howard (2011), “Inclusive, critical multicultural education as a school reform movement is a promising path to ensuring educational equity for all students” (p. 50).

I propose that multicultural education may be the best means to address the inequalities in education, especially among historically marginalized groups, and to help close the educational gap in this country beyond any other measures taken thus far. Multicultural education does not
require racial diversity to be successful. When multicultural education is implemented as intended, students learn the value and importance of race and diversity by reforming environments, Banks (2000) argued, “Multicultural education means reforming schools to address culture, difference, and power” (p. 33).

Multicultural education is the means to provide quality education for students of different cultural and social backgrounds, especially pupils from historically disenfranchised groups O’Grady (2000). O’Grady (2000) argued the value of multicultural education, arguing “Cultural information is integrated into subject matter, knowledge is viewed as a social construction, democratic attitudes and values are supported, academic achievement for culturally diverse students is facilitated, and school environments are revamped to empower marginalized students” (p.5). Multicultural education is a recipe for social change in the largest mandatory social environment in the country, public schools.

Multicultural education is not only relevant in urban education; all students’ races and economic backgrounds benefit from an inclusive education. According to Banks (2001), “Every person and every human group possess both culture and cultural diversity and if this is true then a multicultural perspective on the aims and conduct of education is of primary importance” (p. 33). We live in a global society connected today by technology to the extent that a recent domino of revolutions in North Africa and the Middle East can be traced to the Internet’s social networks. We have the capability of knowing what happens everywhere in the world without leaving our homes. Therefore, multicultural education is particularly valuable in the contemporary world, because it provides understanding and skills and that are necessary to understand and decipher world events as they unfold.
Cultural characteristics are major factors influencing academic success. Multicultural education recognizes the role schools play in social reproduction. Banks (2001) noted that some students “have a better chance to learn in schools as they are currently structured than do students who belong to other groups or who have different cultural characteristics” (p. 3). Cultural characteristics such as language, social norms, learned ways to process information, and learned behavior can determine academic advantages or disadvantages in current school systems (Howard, 2010). Banks (2001) posited that multicultural education is the solution to providing quality education for all children regardless their cultural characteristics. Because “multicultural education conceptualizes all children should have equality in education, despite their race, gender, social class, and cultural background multicultural education is a viable option for educational reform, and is itself an educational reform movement” (Banks, 2001, p. 3).

Disproportionate drop-out rates among minority students are directly connected to inequality in present school systems; to curtail drop-out rates, schools themselves must change (Banks, 2001). Change must come in the form of critical multicultural training for administrators and teachers (Banks, 2001). It is essential teachers and administrators understand the scope of multicultural education. Multicultural education is beyond the visitor approach to educating students on particular topics. For example, exposing students to facts about African Americans during Black history month is not multicultural education (Boyle-Baise, 2002). Multicultural education means reforming schools to address culture, difference, and power. Irvine’s’ (2003) proposal for change focuses on re-conceptualizing roles for teachers, calling on teachers to play the roles of

- Culturally responsive pedagogists,
- Systemic reformers,
• Members of caring communities,
• Reflective practitioners and researches,
• Pedagogical-content specialists, and
• Antiracist educators.

Service learning holds particular promise in improving and advancing multicultural education through the integration of cultural awareness into teacher education curricula.

The Importance of Understanding Culture in Service Learning

Cultural awareness and cultural experience are some of the benefits of multicultural service learning. Multicultural service learning exposes preservice teachers to cultural differences, allowing them to understand the significances of culture, and understand how culture helps to determine who has the advantages in schools and how school culture reproduces social inequalities (O’Grady, 2000). Everyone is influenced by culture and preservice teachers are no exception. Therefore, it is especially important that preservice teachers understand the dynamics of culture, because their lack of knowledge can hinder their ability to interact properly and productively with students from cultural backgrounds outside their own cultures.

According to O’Grady (2000), it has been documented that public schools consist of up to a third minority students, most of them African Americans and Hispanics. The consensus among teacher educators is that there is a need for teacher education programs that are comprehensive; that is, programs must, recruit qualified teacher candidates and offer a contextually or culturally responsive, ecological design. The call for a culturally responsive teacher education program has emerged from a growing awareness of the frequent differences in cultural backgrounds between teachers and students, and the further realization that teachers are frequently unskilled in mediating those differences.
The majority of the preservice teachers in this country are White females, and the odds are favorable that they will have students of color in their classrooms during their educational career (O’Grady, 2000). O’Grady (2000) noted that for many preservice teachers, service learning is the first direct exposure to cultural diversity and poverty. What preservice teachers know about culture, difference, and power often incorporates stereotypes and ignorance to a far greater degree than they are aware. Culture matters because it shapes all aspects of daily living and activities. Unfortunately, the manner in which culture manifests itself for students is frequently not understood in schools and is not used effectively to enhance teaching and learning for all students. This is unsettling because all facets of human conduct are mediated by culture (Cole, 1988; Howard 2010; Rogoff, 2003).

Service learning is considered helpful training for preservice teachers, making it possible for them to teach effectively in culturally diverse or low-income situations, largely because service learning is helpful in making preservice teachers aware of their own culture (Howard, 2010). White preservice teachers do not necessarily realize that they too have a distinct culture, and even African American preservice teachers may not realize that their cultural experiences might be different from their African American urban low income students (Boyle-Baise 2002). According to Boyle-Baise (2002), “This process of becoming [culturally aware] demands a willingness to look within, to reflect upon one’s past and present views, to root out false assumptions, and to reeducate oneself in ways that affirm cultural difference and support educational equality and equity”(p. 55).

Public schools lack teachers who are capable of working with diverse populations. One goal of multicultural service learning is to expose preservice teachers to the significance of using culture as a means to educate students. Successful teachers know how to make their teaching
culturally and linguistically relevant to their students, and in order to do that, they are familiar with the cultural and linguistic background of their students (O’Grady, 2000).

Multicultural service learning is also instrumental in helping preservice teachers understand differences in cultural experiences and the important role of culture in everyday life especially as it pertains to student achievement. Boyle-Baise (2002) referred to Christine Sleeters’ three telling points about preservice teachers’ views of communities: “(1) Educators rarely understand communities to which they do not belong, although they believe they do; (2) educators often think they know children well, based solely on interactions in the classroom; and (3) educators commonly assume they can create multicultural curriculum by adding information they deem true about other cultures” (p. 268).

According to O’Grady (2000), many teachers do not realize students bring cultural resources from their communities, or see them as having community-based identities that serve as sources of strength and power. Language minority students often have much better language and reading skills in their own language. Children who lived in very poor neighborhoods, used literacy in their everyday lives to a far greater degree than their teachers were aware. Plus, some of their parents had much higher academic aspirations for their children than teachers realized. As a result, classroom work was boring and dumb down, but teachers were unaware that children’s uninspired class performance was due to the dullness of the class work more than to the literacy abilities of the children. “Teachers who understand the educational system’s biases and how students’ failure experiences are a direct result of these and other socially based discrepancies, are more likely to resist the status quo in favor of advocating for the just treatment of students and changing the structural inequalities throughout the curriculum” (O’Grady, 2000,
Service learning provides an avenue by which preservice teachers can enlarge their critical consciousness and contribute to the transformation of society (O’Grady 2000).

**Service Learning Within a Framework of Critical Multiculturalism**

Service learning is often framed as “a pedagogical perspective and instructional tool that can help ‘privileged’ students gain greater insight into the life experience and perspectives of others, namely those ‘served’ in the service-learning arrangement” (Butin, 2005, p. 9). The problem with the notion of the privileged helping the less privileged is the likelihood of students defeating the sole purpose of service learning, which is to dispel negative stereotypes. Critical researchers of service-learning warn that privileged students could unintentionally reinforce stereotypes (Butin, 2005).

Although the intent of preservice teacher service learning is to expose students to social injustices and inequality in school systems, research indicates that it is possible for negative stereotypes to be reinforced during the service learning process. According to Butin (2005), there is a need to situate service learning within a framework of critical multiculturalism. Critical multiculturalism is a revolutionary approach to addressing issues of race, culture, and power. Critical multiculturalism provides an in depth analysis of institutionalized oppression and inequality in relation to education, it does so by blending several critical theories such as critical race theory, anti-racist education and critical pedagogy (May & Sleeter, 2010).

Student experiences chronicled in Butin’s (2005) study indicate there is a widespread assumption around race and class regarding who serves, who gets served, and who gets seen as productive, contributing citizens in society. Race has a huge impact on the service learning environment. According to Butin (2005), it is not uncommon for a student’s race to determine
their service learning placement and how they are perceived in their duties. For example, preservice teacher students of color are often viewed as unequal to their White counterparts. Preservice teacher students of color are sometimes assumed to be criminals assigned to service learning as restitution, while White preservice students are seen as productive youth (Butin, 2005).

Service learning, as opposed to other experiential programs, must consider the results of students being placed in a situation where their economic status, education, and race could create an image of superiority. Welch and Billing (2004) argued, “What teacher has not had a student return from a service experience confirmed in their prejudices about the persons or groups for whom they are providing services?” (p. 46). Because of the many possible hazards, students should be aware that service learning is not charity and they should not view themselves as above those they are rendering service (Rimmerman, 2009). One preservice student reflected on how it felt as the subject in service-learning projects.

While in high school, I had participated in a program designed to help high-achieving, low-income students make it to college. I remembered hating the way that the college student ‘servers’ tried to analyze us and figure out what was wrong with us so they could ‘fix’ it. (Butin, 2005. p. 36)

As a result, when this student participated in service learning as a college student, she took on the mentality she experienced while in the role of being served; she became the server, hoping to fix the kids; this led to unsuccessful relationships. The service learning student stated “There was a distance between myself and these kids I desperately wanted to help and that distance was created by the very fact that I thought they needed help” (Butin, 2005 p. 36).
Despite the potential pitfalls and the need for careful planning of service learning experiences, there is significant evidence that service learning can have a positive impact on reducing racial prejudice and unlearning racism (Butin, 2005). According to Butin (2005), preservice teachers who have valuable experiences in placements with diverse students and are able to connect on a personal level find the experience instrumental in their ability to work in diverse environments. Teachers who understand the educational system’s biases and how students’ failure experiences are a direct result of these and other socially based discrepancies are more likely to resist the status quo in favor of advocating for the just treatment of students and changing the structural inequalities throughout the curriculum (Butin, 2005). As educators, it is important to orchestrate service learning experiences that extend beyond empathy and “helping others;” service learning must be an avenue of education that enlarges students’ critical consciousness and contributes to the transformation of society. Such transformation must be toward a fuller humanity for all of us (O’Grady, 2000).

**Conceptualizing Critical Culturally Relevant Teaching as an Instructional Tool**

Multicultural education begins with the assumption that we do not live in an equal and fair society, and it functions as a form of resistance to oppressive social relationships (Sleeter, 2000). Multicultural service learning is instrumental in preparing preservice teachers to recognize inequalities that permeate our educational system and perpetuate social inequalities. O’Grady (2000) argued,

A multicultural perspective makes a different set of assumptions. The social system, rather than being fair and open, is run by those with power, who have rigged the system in their favor, historically as well as today. Institutional discrimination is the result, and this is what needs to be changed. (p. 266)
If the purpose of service learning is to prepare preservice teachers to address social equality in their classrooms, it seems likely the effort revolves around critical culturally relevant teaching. For the purposes of this research, critical culturally relevant teaching is conceptualized as a “pedagogical perspective and instructional tool” that teachers can use to promote equality in education (O’Grady, 2000, p. 226). Scholars in the field acknowledge we live in a racist, sexist, and classist society where certain aspects of schools and society favor the “haves” over the “have-nots” (Nieto, 2000). As a result of our unequal society, curricula and practices in schools are Eurocentric by choice and thereby biased towards students of color, girls, and low-income students. Exposing and eliminating these unequal systems is one of the major goals of multicultural education (Sleeter & Grant, 2003). Interrupting the cycle of inequality and oppression can counteract the lack of achievement among students of diverse backgrounds (Howard, 2010).

Advocates of multicultural education believe that multicultural service learning provides preservice teachers with the necessary means to reduce inequalities through their teaching. O’Grady (2000) noted, “Research implies one purpose/goal of multicultural service learning is exposing preservice teachers to significance of using culture as a means to educate students” (p. 267). Multicultural service learning allows preservice teachers an opportunity to become familiar with the cultural and linguistic background of the students they serve in an effort to ready them as teachers in diverse settings. O’Grady (2000) argued, “Successful teachers know how to make their teaching culturally and linguistically relevant to their students, and in order to do that, they are familiar with the cultural and linguistic background of their students” (p. 267). According to Howard (2010), there is a serious need to prepare teachers from all ethnic groups to work in diverse and urban environments, because the need to prepare teachers for diverse student
populations out weights teacher improvement and minority recruitment. Lower educational outcomes are associated with students from culturally diverse groups and are a direct result of cultural discontinuity between home and school (Howard, 2010).

Nieto (2010) argued that multicultural education is imperative to providing quality education for historically disfranchised students; however, inclusion alone is not enough. The field of multicultural education has endured the challenge of being perceived as a patronizing curriculum. Critics claim multicultural curriculum lacks rigor and depth, and is credited only as a method by which to improve students’ self-esteem. According to Howard (2010), multicultural education goes beyond increasing self-esteem; it has an array of dimensions crossing all disciplines needed to meet education requirements. Howard (2010) argued,

Culturally responsive pedagogy is situated in a framework that recognizes the rich and varied cultural wealth, knowledge, and skills that students from diverse groups bring to schools, and seeks to develop dynamic teaching practices, multicultural content, multiple of assessment, and a philosophical view of teaching that is dedicated to nurturing student academic, social, emotional, cultural, psychological, and physiological well-being. (p. 68)

Culturally responsive teaching requires teachers to understand how students learn, and to take students beyond surface-level comprehension of course content to levels that encourage decision-making, democratic thought, and social action (Banks 2009).

**Elements of an Effective Service Learning Program for Preservice Teachers**

The documented benefits of service learning are substantial. Among the learning outcomes gained by preservice teachers as a result of their participation in service-learning are:

- Increased critical thinking about teaching practice;
- Accentuation of the multiple roles played by teachers;
• Socialization into the moral and civil obligations of the teaching role, including advocating for social justice within the realm of education; and
• Increased knowledge about diversity. (Root et al., 2005, p. 40)

Such benefits, however, are only realized through a well-constructed program. In a review of successful service programs, Root et al. (2005) identified the essential elements of a strong service-learning program. These include:

• Clear educational goals
• Involve students in cognitively challenging tasks
• Assessment used to enhance students learning and evaluate how well students have met content and skill standards
• Students are engaged in service tasks with clear goals that meet genuine community needs and have significant consequences
• Use of evaluation
• Youth voice in selecting, designing, implementing, and evaluating service-learning projects
• Valuing diversity
• Communication, interaction, partnerships, and collaboration with the community
• Students are prepared for all aspects of their service work
• Use of reflection, and
• Celebration and acknowledgment of service work. (p. 99)

According to Root et al. (2005), issues plaguing service learning can be addressed by facilitators and students utilizing methods implemented in successful service learning programs. Preservice teachers should be prepared to utilize service learning as pedagogy, both through
being participants in service learning themselves and through instruction in the pedagogy of high-quality service learning, and that the teacher educators should align outcomes of service learning in teacher education with national and state program standards for accreditation and certification.

**Instructors Role and Benefits of Reflection in Service Learning**

There are two essential components for a quality service learning experience: reflection and reciprocity. Rimmerman’s (2009) work study of service learning found that a required journal shared with the instructor can support reflection and reciprocity that enhances the service learning experience. A major component of authentic service learning is reflection upon the endeavor or action taken by the students. Instructors are crucial to the service learning process; they guide reflection and reciprocity, which are critical to the service learning experience. Reflection can be supported through a variety of instructional strategies including: instructor initiated discussion guided by specific questions, journal prompts, group discussion, whole-class discussion, and writing assignments.

Teachers should frequently facilitate the reflection process by introducing challenging questions or encouraging debates to get students emotionally charged. Teachers also need to monitor the reflection process carefully. According to Powel (2005), “Frequent checks should be made by the instructor to ensure they are following appropriate courses of action to make certain academic connections are being made and students are able to view social change through a standards-based approach to education” (p. 15).

Reflection requires time and energy to review the activity performed and to consider how it has affected oneself. Teachers have the responsibility to steer students to be successful, they can do so by providing information that is essential to establish planning, learning,
understanding, and how to possibly change things that are not working. Powell (2005) noted that “reflection completes the lesson by allowing students to observe, analyze, speculate, question and formulate hypotheses about self-worth. Reflection must be incorporated so that students can process the project from beginning to end” (p. 15).

The importance of reciprocity is the concept that the students are not just learns, but are teachers as well. On the other hand, the recipients of the service are also both teacher and learners. They both teach one another, and work in solidarity with one another. Both participants are encouraged to break out of their comfort zone in order to accomplish the required task. It is the aim of service learning to support the development of relationships that create an environment for transformative education, allowing the other to learn that cultures may differ, but ultimately, human beings have a universal foundational identity with one another (Powell, 2005).

Teachers can support reciprocity in instruction by providing opportunities for students experience the process of reciprocity. Teachers can develop activities which encourage a flow of knowledge between the preservice teacher and their service learning students. Service learning can vary significantly from one setting to another, but there is widespread agreement that reflection and reciprocity are central to learning process (Bowdon et al., 2008).

**Issues and Challenges in Service Learning**

Although the integration of service learning into preservice teacher education programs has grown rapidly in recent years, serious challenges to its use and institutionalization exist. Issues that can impact the ability of teacher education programs to integrate service learning into their curriculum include “(a) finding time for service learning in an already overcrowded curriculum, (b) competing demands placed on teacher preparation programs by state departments
of education and national accreditation organizations, and (c) the need for faculty to understand the theory and practice of service-learning to use it as pedagogy” (Root et al., 2005 p.92).

Many of those who are opposed to courses that require students to participate in community or public service argued that, such service simply cannot possibly achieve all that it purports to achieve (Rimmerman, 2009). For example, opponents of service learning argue community service does little to change young people’s political apathy, because, it teaches little about the arts of participation in public life (Rimmerman, 2009). Rimmerman (2009) argued, “Language of community service is infused with the jargon of “helping” rather- than “a vocabulary that draws attention to the public world that extends beyond personal lives and local communities” (p.77), and this type of argument is frequently used to oppose the integration of service learning into teacher education programs. There are serious practical considerations that need to be addressed by proponents of any community service. According to Rimmerman (2009), these are the most important questions that must precede the decision to undertake a service learning component within a curriculum:

- How well can the practice of national service fulfill its theoretical goals?
- What does” inculcating civic education” mean in concrete terms?
- In what sense will national service offer opportunities for democracy, equality, and participation to those who serve?
- Is the goal of citizenship appropriate to all people, regardless of their race or gender?
- Does national service contribute to citizenship in any material way?
- Furthermore, how should citizenship be nurtured?
- Do the ideas of the planners of national service coincide with those of the philosophers who might view it as appropriate to their ends?
To avoid the alleged pitfalls that can be associated with the creation of a service learning program, Rimmerman (2009) recommended that program leaders use the following questions to guide the philosophy and goals of a service learning program.

- Are the service learning placements challenging (providing growth in important moral and civic skills? 
- Are the students well prepared for the placements?
- Do the field experiences contribute directly to the academic goals of the course?
- Does the course have a structured reflection component that examines the issues addressed by the service in terms of systematic causes and policy responses as well as in interpersonal terms?
- Do students use the reflection opportunities to think through their assumptions, values, and identities when appropriate as well as to focus on the substantive issues raised in the service experience?
- Was the student participation effective from the point of view of the community partners?

Root et al. (2005) argued that the challenges of service learning were often a result of lack of faculty time to implement service learning, followed by the overcrowded preservice curriculum and lack of faculty time for planning. According to Root et al. (2005), “collaboration is essential for success with service learning; and policies and infrastructure that aligns to support effective practice is necessary for success with service-learning” (p. 6).

**Gaps and Conclusions**

Advocates of multicultural education argue that a transformative curriculum fosters empowerment needed by students from disadvantaged groups (Sleeter, 1991). Transformative
curriculum is designed to develop students’ abilities to critically examine political and economic structures. The curriculum consists of concepts, paradigms, and themes which prepare students to challenge mainstream academic understandings (Banks, 1996; Sleeter, 1991). It is notable that in the research available on service learning, the notion of critical multiculturalism is implied, but not fully addressed as a theoretical framework or a guiding practice for the creation of an effective service learning program for preservice teachers. Butin (2005) noted that there is a need to situate service learning in the framework of critical multiculturalism, yet there is little direct mention of this practice in the available literature.

Preservice teachers need to understand the ways power, race, and diversity impact teaching practices (Butin, 2005). Service learning is thought to aid in such understanding and a reduction in racist beliefs through direct experience and reflection on those experiences through journaling, reciprocity and other forms of self-reflection (Rimmerman, 2009). Service learning is viewed by many researchers as having the potential to reform education, impact racism, and promote diversity (Eyler & Giles, 1999; Jacoby, 1996).

However, in-spite of the many benefits afforded through service learning practices, studies also show that issues exist that threaten the success of service learning programs, and there exists a risk that if it is not well implemented, service learning can create more damage than good (Root et al., 2005). In essence, critical culturally relevant teaching is multicultural education in practice. Critical culturally relevant teaching includes the transformative curriculum which is designed to develop critical level thinking. Critical thinking is required to analyze and debunk Eurocentric education which is instrumental in supporting and reproducing social inequality in school systems (Banks, 1996). Multicultural education and service learning prepare preservice teachers to practice critical culturally relevant teaching.
Multicultural education and critical culturally relevant teaching is instrumental in creating equality in school systems. The literature indicates that there is much to be realized in the field of multicultural education such as, what can be learned from multicultural education research. According to Ladson-Billing (1994), educators will be more successful if they understand the five factors that matter in the education of a multicultural population, and they are: (a) teachers’ believes about students; (b) curriculum content and materials; (c) instructional approaches; (d) educational setting; and (e) teacher education (p. 20). According to Banks, “multicultural education is a continuing process because the idealized goal it tries to actualize—such as educational equality and the eradication of all forms of discrimination—can never fully be achieved in human society” (Banks, 2001, p. 3).

Absent from the research is detailed information on factors which inhibited or facilitate positive multicultural service learning experiences. For example, what is the impact of preservice teacher s’ age, gender, motivation, service learning assignments, and service learning site on preservice teachers’ willingness to teach in diverse under-resourced schools? There is a need for more research on factors which have the greatest impact on preservice teachers’ multicultural service learning outcomes, as it pertains to preparing teachers to teach in diverse settings. As a result, this study sought to fill in the previously mentioned gaps by analyzing data from a multicultural service learning survey designed to find out more about what preservice teachers learn from multicultural service learning experiences and what factors impact how they learn it. Chapter 3 provides a detailed discussion of the methods that were used to conduct the study.
Chapter 3. Methods

Introduction

In the literature review, I attempted to capture the impact of critical multicultural service learning experiences on preservice teachers’ understanding of the importance of power, culture, race, and diversity. Using critical multicultural education as a point of reference, I discussed how critical culturally relevant teaching can be an instructional tool for teachers to improve student achievement and promote equality in classrooms. In the current study, this instructional tool was assessed in the context of a teacher education course titled TE250: Human Diversity, Power and Opportunity in Social Institutions.

The course focused on diversity issues involving race, class, special needs, gender, sexual orientation, language and culture and introduced prospective teachers to the way in which social inequality affects schooling and how schooling affects and/or reproduces social inequality. TE250 is a required course for students who apply for admission to the teacher education program. In addition to readings, classroom discussions, activities, and a variety of assessment practices, students are embedded in real world situations to help them connect what they are learning in class to what happens in schools and society. For example, tutoring students with academic needs in K-12 classrooms or in after school programs are two options. Instructors are responsible for teaching their own sections. They meet as a team to discuss key concepts, teaching strategies, readings and other materials. The course coordinator works with instructors on readings and assignments and provides mentoring on all aspects of the experience, including pedagogy.

The purpose of the current study was to evaluate TE250 preservice teachers’ multicultural service learning experiences and examine how service learning affects preservice
teachers’ understanding of the importance of culture, power, race and diversity as they work with children and youth in diverse settings, usually for the first time. Another objective of this study was to understand how multicultural service learning experiences influence preservice teachers’ intentions to teach in diverse settings in the future. The current study moves beyond past research by identifying what preservice teachers learn from their multicultural service learning experience, how they learn it, and how this experience impacts their beliefs about teaching in under-resourced schools.

**Research Questions**

Five research questions were developed based on the extant literature on multicultural service learning. The independent variables, dependent variables and statistical analysis used to analyze each research question are provided in Table 3.X. Both descriptive and inferential statistics will be used to evaluate Research Questions 1 through 5.

1. Did preservice teachers report that their attitudes and knowledge about diversity issues changed as a result of service learning experience?

2. What activities did preservice teachers report impacted their learning the most during their service learning experience?

3. What individual differences between themselves and their students did student teachers report contributed often to challenges they encountered during their service learning experience?

4. Was there a difference in the amount that student teachers reported individual differences between themselves and their students contribute to challenges they experienced during service learning, depending on the preservice teachers’ gender, and the placement grade?
5. Did preservice teachers’ service learning experience influence their willingness to work in under resourced schools?

Table 3.1

Study Variables and Statistical Tests for Research Questions 1-5

<table>
<thead>
<tr>
<th>RQ</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Statistical Test</th>
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<td>Attitudes</td>
<td>Descriptive Stats</td>
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<td></td>
<td>Knowledge</td>
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<td>Service Learning Activities</td>
<td>Descriptive Stats</td>
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<tr>
<td>3</td>
<td>NA</td>
<td>Individual Differences between Self and Students by Item</td>
<td>Descriptive Stats</td>
</tr>
<tr>
<td>4</td>
<td>Gender (Female/Male)</td>
<td>Individual Differences between Self and Students Overall</td>
<td>ANOVA</td>
</tr>
<tr>
<td></td>
<td>Placement Grade (K-5/6-8/9-12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Perception of Neighborhood Safety</td>
<td>Intention to Teach in Under-Resourced School</td>
<td>Logistic Regression</td>
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<td></td>
<td>Perception of Student Motivation</td>
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<td></td>
<td>Time Spent Helping</td>
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<td>Students with Academics</td>
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Research Design and Methodology

The design of this study is quantitative and correlational in nature and involved archival data from a service learning survey. Survey research is one of the most important areas of measurement in applied social science, in part because data can be collected from a large group of participants quickly and cost-effectively (Ott & Longnecker, 2001). Correlational research
methods are used to describe relationships between naturally occurring variables, where the researcher does not manipulate the independent variables (Furlong, Lovelace & Lovelace, 2000). Correlational, survey research methods were appropriate for this study because the goal of the study was to describe average characteristics and behaviors of a group and determine if some characteristics/behaviors could be used to predict or explain changes in other behaviors. This objective could not be achieved using a qualitative design. Most of the current research on service learning has been criticized as predominately qualitative and small scale, raising concerns about the level of rigor and support for findings in service learning research (Casey, et al. 2005). Qualitative methods produce information only on the particular cases studied, and any more general conclusions are only hypotheses. Quantitative methods can be used to verify, which of such hypotheses are true. Lack of random assignment in the quasi-experimental design method may allow studies to be more feasible, but this also poses many challenges for the investigator in terms of internal validity. This deficiency in randomization makes it harder to rule out confounding variables and introduces new threats to internal validity. Because randomization is absent, some knowledge about the data can be approximated, but conclusions of causal relationships are difficult to determine due to a variety of extraneous and confounding variables that exist in a social environment. Moreover, even if these threats to internal validity are assessed, causation still cannot be fully established because the experimenter does not have total control over extraneous variables (Cook & Campbell, 1979). The quantitative design of the current study addresses this weakness in the existing literature.

Variables

**Change in Attitudes about Diversity Issues.** This variable was defined as: preservice teachers’ opinions about diversity issues. Fifteen items were used to measure preservice
teachers’ perceptions about how their attitudes about diversity-related issues changed as a result of their pre-service learning experience. The fifteen items were preceded by the prompt: Overall, how would you describe your service learning experience? Participants rated how much service learning affected their attitudes on a four-point Likert-type scale ranging from A lot (1) to None at all (4). An example attitude item is: It has made me aware of the negative stereotypes that I had about children from lower socio-economic families. See Appendix A for a list of all the items measuring perceived changes in attitudes about diversity as a result of service learning.

**Change in Knowledge about Diversity Issues.** This variable was defined as: preservice teachers’ level of awareness about diversity issues. Twelve items were used to measure preservice teachers’ perceptions about how their knowledge about diversity-related issues changed as a result of their pre-service learning experience. The twelve items were preceded by the prompt: To what extent does your service learning enrich your understanding of the following topics covered in TE250? Participants rated how much service learning affected their knowledge on a four-point Likert-type scale ranging from A lot (1) to None at all (4). An example knowledge item is: Power and the construction of normality. See Appendix A for a list of all the items measuring perceived changes in knowledge about diversity as a result of service learning.

**Service Learning Activities that Impacted Learning.** This variable was defined as: activities that influenced preservice teachers’ learning. Six items were used to measure preservice teachers’ perceptions about the activities that had the largest impact on their learning. The six items were preceded by the prompt How much of your learning came from the following experiences? Participants rated how much each experience impacted their learning on a four-point Likert-type scale ranging from A lot (1) to None at all (4). An example knowledge item is:
Reflection in journals or written assignments. See Appendix A for a list of all the items measuring perceived impact of service learning experiences on learning.

**Perceptions of Individual Differences between Self and Students.** This variable was defined as: how preservice teachers discern differences between themselves and the students they serviced. Twelve items were used to measure preservice teachers’ perceptions about individual differences between themselves and their students that contributed to challenges they experienced during service learning. The twelve items were preceded by the prompt: Overall, what social, cultural and individual differences between you and your students at the service-learning site contributed the most to challenges you’ve encountered at the service-learning site? Participants rated how much individual differences between themselves and their students contributed to challenges they experienced on a four-point Likert-type scale ranging from A lot (1) to None at all (4). An example knowledge item is: Race and Ethnicity. See Appendix A for a list of all the items measuring perceived individual differences between self and student. For Research Question 3, descriptive statistics for each individual difference item are provided (e.g., means and standard deviations). For Research Question 4, the twelve individual difference items were averaged to create a composite score where higher averages indicate that a preservice teacher believed differences between themselves and their students, across the twelve individual difference categories contributed to challenges infrequently, and lower averages indicate that a preservice teacher perceived that individual differences between themselves and their students, across the twelve categories, contributed frequently to challenges they experienced.

**Gender.** Gender was defined as the biological sex of a participant. Participants were asked to identify their sex as either Female (1) or Male (2).
**Placement Grade.** Placement grade was defined as the grade level of students that the preservice teacher worked with most often. One survey item was used to measure placement grade. The prompt for this item was: What grade of students do you work with the most? Participants were asked to select one of the following six response options: pre-K (1), K-5 (2), 6-8 (3), 9-12 (4), all grade levels (5), college students or adults (6). For Research Question 4, pre-K (1), all grade levels (5) and college students or adults (6) were not included in the analysis.

**Perception of Neighborhood Safety.** This variable was defined as: preservice teachers’ impression of safeness in the neighborhood they traveled. One survey item was used to measure perception of neighborhood safety. The prompt for this item was: How often did you see or experience the following situations at your service-learning site: I felt safe to travel to my service-learning site. Participants were asked to rate how often they felt safe on a four-point Likert-type scale ranging from Always (1) to Never (4).

**Perception of Student Motivation.** This variable was defined as: preservice teachers’ opinion of students’ interest. One survey item was used to measure perception of student motivation. The prompt for this item was: How much do you agree or disagree with each of the following statements: The students I worked with are motivated to succeed in school. Participants were asked to rate how motivated students were on a four-point Likert-type scale ranging from: Strongly agree (1) to Strongly disagree (4).

**Time Spent Helping Students with Academics.** This variable was defined as how often preservice teachers assisted students with academics… One survey item was used to measure the amount of time preservice teachers spent helping students with academics. The prompt for this item was: Overall, how often have you’re your service-learning hours been devoted to each of the following assignments: Helped students with academic needs (e.g. homework, reading
English, math, science, et.). Participants were asked to rate how much they agreed with this statement on a four-point Likert-type scale ranging from Always (1) to Never (4).

**Intention to Teach in Under-Resourced Schools.** This variable was defined as: perservice teachers’ plans to teach in under-resourced schools. One survey item was used to measure preservice teachers’ intentions to teach in under-resourced schools in the future. The prompt for this item was: Overall, how would you describe your service-learning experience? It increases the likelihood that I will choose to teach in an under-resourced school in the future. Participants were asked to rate how much service learning increased the likelihood they would teach in an under-resourced school on a four-point Likert-type scale ranging from A lot (1) to None at all (4). This variable was transformed into a categorical variable so that affirmative responses (i.e., A lot, Some and A little) were recoded as 1 and negative responses (i.e., None at all) were recoded as 0.

**Population and Sample**

The population of interest in the current study are potential education students taking a required undergraduate teacher education course with a service learning component. The students’ service learning placement sites are schools and or community facilities in urban areas.

The sample for the current study was 324 students enrolled in 18 TE250 courses in the spring of 2008 at MSU. According to the data, 69.4% percent of the preserve teachers in the sample were females, 28.1% of preservice teachers were male. In terms of racial make-up, 90.1% were White or Caucasian, 63.5 of the females were Caucasian, 27% of the males were Caucasian, 2.2% Black, 2.2% were Asian, .6% Hispanic/Latino .3% White and Black, .3% White and Asian, .3% Some other race, .9% White and Hispanic/Latino and 2.8% Other multiracial. In terms of community type, 61.1% identified themselves as suburban, 22.8 %
small town, 8.0% rural town, and only 7.1% urban. In terms of schooling context, approximately 92.3% of preservice teachers graduated from public high schools, 5.2% graduated from Catholic high schools, .3% graduated from charter high schools, 2.2% the remaining 2.2% checked other.

**Power Analysis**

An apriori power analysis was conducted using GPower 3.0 (Erdfelder, Faul, Buchner, 1996) to determine the sample size needed to detect a moderate effect with a power level of .80 for Research Questions 4 and 5. For Research Question 4, a sample size of 158 is needed to detect a moderate effect with $p = .05$. For Research Question 5 a sample size of $n = 64$ is needed to have sufficient power (.80) to detect a moderate effect with $p = .05$.

**Instrumentation**

The multicultural service learning survey was developed and conducted under the guidance of Dr. Dorothea Anagnostopoulos, a Michigan State University (MSU) Associate Professor in the College of Education. The survey was a self-report questionnaire consisting of 146 questions designed to find out more about the outcomes of multicultural service-learning experiences. The majority of the questions in the service learning survey were designed to ask for factual reporting from preservice teachers about their experiences at the service learning sites and in their TE 250 class. The data from this survey had not been analyzed or used prior to the current study.

In an effort to reduce potential validity threats derived from inadequate content and wording of the survey questions, Dr. Anagnostopoulos administered a pilot survey and revised survey questions based on comments from the pilot group. Lastly, in order to monitor the effects of social desirability bias on respondents’ answers, a desirability scale was included in the
surveys to measure the correlation between participants’ attitudinal orientation, reporting on service learning outcomes and the effect of their social desirability tendency.

**Data Collection Procedure**

For data collection a service learning survey was administered to preservice teachers at the end of the semester to record their service learning experience. Areas of interest that were covered in this survey included preservice teachers’ opinions about and perceptions of: (1) the effects of service learning on their learning about diversity issues and course concepts (2) curriculum integration of service learning and course materials in classroom sessions, and (3) factors that contribute to the challenges and accomplishments they experienced at the service learning sites.

When answering questions, students were instructed to please consider each statement carefully, but not to spend a lot of time deliberating about a single item. Students were asked to read the statement at the beginning of each section. Students then read each question and checked the box that corresponded with the response that best represented their experience, actions, or opinions. It took approximately 20-25 minutes to complete the survey.

**Data Analysis Procedure**

The Statistical Package for the Social Sciences (SPSS) software program, Student Version 17.0 was used to conduct the analysis procedure. Where applicable, data analysis included descriptive statistics, means, standard deviation, and frequency. Additionally, histograms were presented as well as z-scores and plots to support assumptions of normality. Furthermore, a model summary table, and supporting figures were displayed for Research Questions 4 and 5. For this analysis, alpha was set at $p = .05$ provided assumptions of normality were met.
Profile of sample. The following variables were used to profile the sample... Each variable was discussed using descriptive statistics in text and displayed via a table. The information reported included frequency count and percent by group level.

Outliers. A test for univariate (RQ4 and RQ5) and multivariate (RQ5) outliers were conducted to determine when any cases was not statistically considered to be part of the sample. To detect univariate outliers, case scores were converted into z-scores and compared to the critical value of +/- 3.29, p < .001 (Tabachnick & Fidell, 2008). Cases that exceed this critical value were be investigated and removed or recoded as appropriate. To detect multivariate outliers, Mahalanobis distance scores were computed and compared against a chi square critical value of 16.266 (df = 3, p < .001). Cases with Mahalanobis distance scores above the critical value are considered to be multivariate outliers and were investigated and removed if appropriate. Cases that exceed this value were removed provided they warrant removal.

Missing data. Cases with missing data were detected by running frequency counts in SPSS 17.0. Those cases with missing data on more than 5 percent of the items were summarily removed from further analysis. Those cases with missing data in less than 5 percent of the items were kept by imputing field means into empty cells.

Parametric assumptions. The assumptions of ANOVA and logistic regression were evaluated prior to each analysis. For Research Question 4, the assumptions of normality, and homogeneity of variance was evaluated prior to conducting the ANOVA. A graphical device was created to aid the researcher in determining degree of normality. Specifically, a histogram was presented to provide visual evidence of degree of normality. Non-normality was detected by evaluating a deleted residual histogram and computing a z-skewness coefficient. Homogeneity of variance was evaluated using Levene’s test. If Levene’s test is not significant, the assumption of
homogeneity of variance is assumed to be met, meaning that the variances of the different groups are not significantly different. If Levene’s test is significant and the assumption is violated, the Welsh and Brown-Forsythe tests will be evaluated instead of the omnibus F test. For Research Question 5, multicollinearity among the independent variables was evaluated using bivariate correlations. Correlations above .70 indicate multicollinearity is an issue. When multicollinearity exists, one of the offending variables was removed.

**Order of analyses.** Demographic data was presented first to construct a profile of the sample population tested. Next, missing data and outliers were evaluated and dealt with according to the description above. Next, the assumptions of ANOVA and logistic regression were tested. Lastly descriptive statistics were computed to evaluate Research Questions 1-3, an ANOVA analysis was conducted to evaluate Research Question 4 and a logistic regression will be conducted to evaluate Research Question 5.

**Descriptive Statistics.** Descriptive statistics including the range, minimum, maximum, mean and standard deviation was used to describe all continuous study variables and evaluate Research Questions 1-3.

**Analysis of Variance.** A two-by-three between groups analysis of variance (ANOVA) was used to evaluate Research Question 4. The independent variables were gender (female or male) and placement grade (K-5, 6-8 or 9-12). The dependent variable was the average rating of how many preservice teachers perceive individual differences between themselves and their student contributed to challenges they experienced during service learning. The purpose of ANOVA was to determine if there were significant mean differences in a continuous dependent variable depending on one or more categorical independent variables. The omnibus F statistic was used to evaluate interaction effects and main effects. When the F statistic for the interaction
was significant, this meant that the relationship between one IV and the DV depends on levels of a second IV. An example of a possible interaction effect in the current study was when there was a significant difference in mean scores on the DV depending on grade level, but only for men. When the interaction was significant, the main effects were not interpreted easily. When the F statistics was significant for the main effect of an IV, it meant that there was a significant difference in the DV depending on levels of that IV, disregarding any other IVs included in the model. When the main effect was significant and the IV had more than two levels, post-hoc tests were conducted to determine which levels of the IV were significantly different from which other levels.

**Logistic Regression.** A logistic regression analysis was conducted to evaluate Research Question 5. The three continuous independent variables were perceptions of neighborhood safety, perceptions of student motivation and amount of time spent helping students with academics. The categorical dependent variable was whether preservice teachers report their service experience increased their intentions of teaching in under-resourced schools in the future, or not. The overall fit of the model was evaluated using a chi square goodness of fit test. When the overall model was significant, the relative importance of the predictor variables was evaluated using odds ratios. An odds ratio was the change in the odds of being in the DV category coded as 1 (in this case, having an increased intentions to teach in under-resourced schools as a result of service learning) for every one unit increase in the predictor variable, all other factors being equal.

**Ethical Considerations**

Issues of confidentiality, informed consent, voluntary participation and risk and benefits to participants were addressed as follows. No identifying information was requested and/or
placed on the survey instrument. Participants were asked to create an anonymous unique study ID. All results were reported as grouped data only. The researchers did not share the survey or survey results with instructors or other students. Only the researchers had access to the survey data. During the distribution of the research questionnaire, the participants were asked to sign an informed consent. The consent had the following data: title of project, investigators, purpose of the research project, procedures, risks, benefits, extent of anonymity and confidentiality, compensation, and freedom to withdraw. Please see sample consent form in Appendix X.

Participation in this study was voluntary and the participants were free to stop at any time without penalty. There was no risk, direct-benefit or indirect benefit of participating in this study besides being a part of furthering the research on preservice multicultural teaching experiences.

**Limitations**

The external validity of this study was negatively affected by the survey methodology. Even when the sample is selected properly, there are uncertainly about whether the survey represents the population from which the sample was selected Ott and Longnecker (2001). Internal validity of this study was negatively affected by the rigor in which the survey was conducted. For example, the study design, the care taken to conduct measurements, and decisions to evaluate what was and was not measured affected this study Huiitt (1998). Self-report response bias also affected the internal validity of this study. Self-report questionnaires are inherently biased by the persons’ feelings at the time they fill out the questionnaire. When a person feels good while they are completing the survey they give positive answers. Likewise, when a person feels unhappy while completing the survey they give negative responses Cook & Campbell (1979).
Two major sources of uncertainty were nonresponse, which occurred when a portion of the individuals sampled did not or would not participate in the survey, and measurement problems, which occurred when the respondent’s answers to questions did not provide the type of data the survey was designed to obtain (Ott and Longnecker 2001). Survey nonresponse resulted in a biased survey because the sample was not representative of the population.

Measurement problems are often due to the specific wording of questions in a survey, the manner in which the respondent answers the survey questions, and the fashion in which an interviewer phrases questions during the interview. Examples of specific problems were as follows: inability to recall answers to questions, leading questions, and unclear wording of questions.

Summary

This chapter presented the quantitative and correlational design that was used to explore the relationships between TE 250 preservice teachers’ multicultural service learning experience outcome expectancies (how service learning affects preservice teachers’ understanding of the importance of culture, power, race and diversity) and to understand how multicultural service learning experiences influence preservice teachers’ intentions to teach in diverse settings in the future. Sample characteristics, settings, sample recruitment, data collection procedures, including human rights protection were discussed. The self-administered 146 questionnaire survey, data analysis procedure and the pilot test to evaluate the instruments’ language equivalence, level of comprehension, internal consistency and a desirability scale to monitor social desirability bias on respondents’ answers were also described.

Chapter 4 presents the study results of statistical data analysis. In this analysis chapter, I discuss the findings from the TE 250 multicultural service learning survey and examine what the
survey implies about preservice teachers ‘attitudes and knowledge about diversity issues as a result of their multicultural service learning experience. I use the data from the multicultural service learning survey to analyze preservice teachers’ critical thinking about how culture, power, race, and diversity impact teaching practice.

In Chapter 5, I discuss implications and conclusions. I examine preservice teachers’ service learning outcomes to include: If their multicultural service learning experience increased their knowledge and changed their attitude about diversity issues, what factors impacted their service learning experience most and what service learning characteristics or experiences predict whether a student teacher reports an increase intention to work in an under-resourced school in the future.
Chapter 4. Results

Introduction

Five research questions were developed based on the extant literature on multicultural service learning. The independent variables, dependent variables, statistical analysis used to analyze each research question, and significance levels, if applicable, are provided in Table 4.1. Both descriptive and inferential statistics were used to evaluate Research Questions 1 through 5.

1. Did preservice teachers report that their attitudes and knowledge about diversity issues changed as a result of service learning experience?

2. What activities did preservice teachers report impacted their learning the most during their service learning experience?

3. What individual differences between themselves and their students did student teachers report contributed often to challenges they encountered during their service learning experience?

4. Was there a difference in the amount that student teachers reported individual differences between themselves and their students contributed to challenges they experienced during service learning, depending on the preservice teacher’s gender, and the placement grade?

5. Did preservice teachers’ service learning experiences influence their willingness to work in an under-resourced school in the future?
Table 4.1

Study Variables and Statistical Tests for Research Questions 1-5

<table>
<thead>
<tr>
<th>RQ</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Statistical Test</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>Attitudes Knowledge</td>
<td>Descriptive Stats</td>
<td>NA</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>Service Learning Activities</td>
<td>Descriptive Stats</td>
<td>NA</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>Individual Differences between Self and Students by Item</td>
<td>Descriptive Stats</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Gender (Female/Male)</td>
<td>Indifference Differences between Self and Students Overall</td>
<td>ANOVA</td>
<td>.016</td>
</tr>
<tr>
<td></td>
<td>Placement Grade (K-5/6-8/9-12)</td>
<td></td>
<td></td>
<td>.054</td>
</tr>
<tr>
<td></td>
<td>Perception of Neighborhood Safety</td>
<td>Intention to Teach in Under-Resourced School</td>
<td>Logistic Regression</td>
<td>.289</td>
</tr>
<tr>
<td></td>
<td>Perception of Student Motivation</td>
<td></td>
<td></td>
<td>.045</td>
</tr>
<tr>
<td></td>
<td>Time Spent Helping Students with Academics</td>
<td></td>
<td></td>
<td>.041</td>
</tr>
</tbody>
</table>

**Demographic Data**

Frequency and percent statistics are provided for categorical demographic variable in Table 4.2 below.
Table 4.2

*Frequency and Percent Statistics for Categorical Demographic Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-Teacher</td>
<td>Female (1)</td>
<td>225</td>
<td>71.2</td>
</tr>
<tr>
<td></td>
<td>Male (2)</td>
<td>91</td>
<td>28.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>316</td>
<td>100.0</td>
</tr>
<tr>
<td>Race-Teacher</td>
<td>White or Caucasian</td>
<td>292</td>
<td>90.4</td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>7</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>7</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Hispanic/Latino</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>White and Black</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>White and Asian</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>White and Hispanic</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>9</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>323</td>
<td>100.0</td>
</tr>
<tr>
<td>Community-Teacher Attended</td>
<td>Urban</td>
<td>23</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>198</td>
<td>61.7</td>
</tr>
<tr>
<td></td>
<td>Small Town</td>
<td>74</td>
<td>23.1</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>26</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>321</td>
<td>100.0</td>
</tr>
<tr>
<td>School Type-Teacher Attended</td>
<td>Public School</td>
<td>299</td>
<td>92.3</td>
</tr>
<tr>
<td></td>
<td>Charter School</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Catholic School</td>
<td>17</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>7</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>324</td>
<td>100.0</td>
</tr>
<tr>
<td>School Gender-Teacher</td>
<td>Single Sex</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Mixed Sex</td>
<td>319</td>
<td>98.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>324</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 4.2 cont’d

Frequency and Percent Statistics for Categorical Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Certificate</td>
<td>Pre-K</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>K-5</td>
<td>60</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>6-8</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>9-12</td>
<td>172</td>
<td>54.6</td>
</tr>
<tr>
<td></td>
<td>K-8</td>
<td>48</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>All Grade Levels</td>
<td>24</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>315</td>
<td>100.0</td>
</tr>
<tr>
<td>Service Learning Site</td>
<td>General Education</td>
<td>145</td>
<td>44.9</td>
</tr>
<tr>
<td></td>
<td>School-Based After/Before School Program</td>
<td>32</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>Special Education Classroom</td>
<td>10</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>Bi-Lingual/ESL Classroom</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Community-Based After School Program</td>
<td>116</td>
<td>35.9</td>
</tr>
<tr>
<td></td>
<td>Other Rooms During School Hours</td>
<td>15</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>323</td>
<td>100.0</td>
</tr>
<tr>
<td>Grade Level of Students</td>
<td>K-5</td>
<td>145</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>6-8</td>
<td>63</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>9-12</td>
<td>88</td>
<td>27.3</td>
</tr>
<tr>
<td></td>
<td>K-8</td>
<td>17</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>All Grade Levels</td>
<td>9</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>322</td>
<td>100.0</td>
</tr>
<tr>
<td>Racial Group of Students</td>
<td>White</td>
<td>90</td>
<td>27.8</td>
</tr>
</tbody>
</table>
Table 4.2 cont’d

<table>
<thead>
<tr>
<th>Racial Group of Students</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>292</td>
<td>90.1</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>97</td>
<td>29.9</td>
</tr>
<tr>
<td>Asian</td>
<td>46</td>
<td>14.2</td>
</tr>
<tr>
<td>Native American</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>Indian American</td>
<td>12</td>
<td>3.7</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>7</td>
<td>2.2</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>60</td>
<td>18.5</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Note. Racial Group of Students levels do not sum to 100% because these items were asked separately.

Research Question 1 Findings

Research Question 1 asked: Did preservice teachers report that their attitudes and knowledge about diversity issues change as a result of service learning experiences? For the attitude items, preservice teachers responded to the prompt: Overall how would you describe your service learning experience? For the knowledge items, preservice teachers responded to the prompt To what extent does your service-learning enrich your understanding of the following topics covered in TE250? Overall, the mean rating on the 15 attitude items was $M = 2.60$, and the mean rating for the 12 knowledge items was $M = 3.0$, on a scale ranging from Strongly Agree (1) to Strongly Disagree (4). Descriptive statistics for the attitude and knowledge items are provided in Tables 4.3 and 4.4 respectively.

The items are ranked from highest to lowest by the mean. The items that preservice teachers reported disagreeing with the most were Realize that teaching is not the right career for
me (M = 3.76), Reinforce my stereotypes about lower socioeconomic status children and their parents (M = 3.49) and Realize that there is little I can do to make a change in an educational organization (M = 3.25). The items that preservice teachers reported agreeing with the most were Enhance my sensitivity to cultural diversity (M = 1.80), Clarify my commitment to pursue a career in teaching (M = 1.82), and Enhance my understanding of social inequality in relation to social issues (M = 1.83) and Realize there is a lot I can do to make a change for students on an individual level (M = 1.86).
<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realize that teaching is not the right career for me</td>
<td>321</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.76</td>
<td>0.66</td>
</tr>
<tr>
<td>Reinforce my stereotypes about lower socioeconomic</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.49</td>
<td>0.71</td>
</tr>
<tr>
<td>children and their parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little I can do to make a change in an educational</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.25</td>
<td>0.80</td>
</tr>
<tr>
<td>organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase the likelihood that I'll choose to teach in an</td>
<td>321</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.78</td>
<td>0.94</td>
</tr>
<tr>
<td>under-resourced school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aware of my negative stereotypes about children of different race</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.56</td>
<td>1.04</td>
</tr>
<tr>
<td>Realize that I'll prefer to teach in a community similar to where I</td>
<td>320</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.40</td>
<td>1.03</td>
</tr>
<tr>
<td>grew up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aware of my negative stereotypes about low-SES children</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.24</td>
<td>0.97</td>
</tr>
<tr>
<td>children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance my understanding of course materials</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.14</td>
<td>0.85</td>
</tr>
<tr>
<td>Help me form positive views of lower-class children and their</td>
<td>318</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.00</td>
<td>0.84</td>
</tr>
<tr>
<td>families</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Table 4.3 cont’d

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help me develop more complex ways of analyzing problems</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.96</td>
</tr>
<tr>
<td>Increase my sense of responsibility to work with disadvantaged students</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.96</td>
</tr>
<tr>
<td>Realize a lot I can do to make a change for students on an individual level</td>
<td>323</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.86</td>
</tr>
<tr>
<td>Enhance my understanding of social inequality in relation to education issues</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.83</td>
</tr>
<tr>
<td>Clarify my commitment to pursuing a career in teaching</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.82</td>
</tr>
<tr>
<td>Enhance my sensitivity to cultural diversity</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitude Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>323 2.60 1.40 4.00 2.39 0.44</td>
</tr>
</tbody>
</table>

*Note.* Items are ranked from highest to lowest according to mean scores
Table 4.4

*Range, Minimum, Maximum, Mean and Standard Deviation Statistics for Attitude Items*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privileges and disadvantages - social class</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.13</td>
<td>.864</td>
</tr>
<tr>
<td>Privileges and disadvantages – language</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.08</td>
<td>.957</td>
</tr>
<tr>
<td>Privileges and disadvantages - race and ethnicity</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.03</td>
<td>.894</td>
</tr>
<tr>
<td>It is difficult to find relevant cases from SL to facilitate my comprehension</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.96</td>
<td>.985</td>
</tr>
<tr>
<td>Privileges and disadvantages - ability level - learning, emotional and physical ability</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.94</td>
<td>.930</td>
</tr>
<tr>
<td>Privileges and disadvantages - school finance</td>
<td>321</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.93</td>
<td>.993</td>
</tr>
<tr>
<td>Social reproduction theory</td>
<td>296</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.91</td>
<td>.886</td>
</tr>
<tr>
<td>Power and construction of normality</td>
<td>318</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.74</td>
<td>.864</td>
</tr>
<tr>
<td>The competing purposes of education</td>
<td>310</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.72</td>
<td>.819</td>
</tr>
<tr>
<td>Privileges and disadvantages – tracking</td>
<td>295</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.52</td>
<td>.940</td>
</tr>
<tr>
<td>Privileges and disadvantages – gender</td>
<td>322</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.32</td>
<td>.964</td>
</tr>
<tr>
<td>Privileges and disadvantages - sexual orientation</td>
<td>321</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.65</td>
<td>.913</td>
</tr>
<tr>
<td><strong>Knowledge Average</strong></td>
<td>322</td>
<td>3.00</td>
<td>1.00</td>
<td>4.00</td>
<td>2.74</td>
<td>0.53</td>
</tr>
</tbody>
</table>

*Note.* Items are ranked from highest to lowest according to mean scores
Research Question 2 Findings

Research Question 2 asked: What activities did preservice teachers report impacted their learning the most during their service learning experience? For the activity items, preservice teachers responded to the prompt: *How much of your learning came from each of the following experiences?* The scale for these items ranged from *A lot (1)* to *None at all (4).* Descriptive statistics for the activity items are provided in Table 4.5. The activity items are ranked from highest to lowest by the mean. The activities that preservice teachers reported contributed most to their learning was *Interaction with Students* (*M* = 1.85) and the activities that preservice teachers reported contributed least to their learning was *Working with professionals at service learning sites* (*M* = 2.73) and *Reflections in journals or written assignments* (*M* = 2.65).

Table 4.5

*Range, Minimum, Maximum, Mean and Standard Deviation Statistics for Activity Items*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with professionals at service-</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.73</td>
<td>1.089</td>
</tr>
<tr>
<td>learning site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflections in journals or written</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.65</td>
<td>.817</td>
</tr>
<tr>
<td>assignments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information sharing with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other volunteers or classmates</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.22</td>
<td>.853</td>
</tr>
</tbody>
</table>

53
<table>
<thead>
<tr>
<th>Class discussions</th>
<th>319</th>
<th>3</th>
<th>1</th>
<th>4</th>
<th>2.21</th>
<th>.925</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactions with students</td>
<td>319</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.85</td>
<td>.933</td>
</tr>
<tr>
<td>I served</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Items are ranked from highest to lowest according to mean scores
Research Question 3 Findings

Research Question 3 asked: What individual differences between themselves and their students did student teachers report contributed often to challenges they encountered during their service learning experience? For the individual difference items, preservice teachers responded to the prompt: *Overall, what cultural and individual differences between you and your students at the service-learning site contributed the most to challenges you’ve encountered at the service-learning site?* The scale for these items ranged from *A lot (1)* to *None at all (4)*. Descriptive statistics for the activity items are provided in Table 4.6. The individual differences between themselves and their students that preservice teachers reported contributed the least to challenges they encountered at the service learning site was *Sexual Orientation* (*M* = 3.90), *Gender* (*M* = 3.44) and *Age* (*M* = 3.13). The individual differences that preservice teachers reported contributing most to challenges they encountered at the service learning site were *Motivation* (*M* = 2.15) and *Communication and Interaction Styles* (*M* = 2.28).
Table 4.6

*Range, Minimum, Maximum, Mean and Standard Deviation Statistics for Individual Differences between Self and Student Items*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Range</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual orientation</td>
<td>270</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.90</td>
<td>.377</td>
</tr>
<tr>
<td>Gender</td>
<td>313</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.44</td>
<td>.799</td>
</tr>
<tr>
<td>Age</td>
<td>315</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.13</td>
<td>.920</td>
</tr>
<tr>
<td>Race and ethnicity</td>
<td>315</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.95</td>
<td>1.003</td>
</tr>
<tr>
<td>Social class</td>
<td>314</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.92</td>
<td>1.019</td>
</tr>
<tr>
<td>Ability level</td>
<td>312</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.59</td>
<td>.948</td>
</tr>
<tr>
<td>Language</td>
<td>307</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.51</td>
<td>1.127</td>
</tr>
<tr>
<td>Ambition</td>
<td>309</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.41</td>
<td>.982</td>
</tr>
<tr>
<td>Educational aspiration</td>
<td>304</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.39</td>
<td>1.018</td>
</tr>
<tr>
<td>Behavioral patterns</td>
<td>314</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.34</td>
<td>.977</td>
</tr>
<tr>
<td>Communication and interaction styles</td>
<td>318</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.28</td>
<td>.905</td>
</tr>
<tr>
<td>Motivation</td>
<td>317</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.15</td>
<td>1.003</td>
</tr>
</tbody>
</table>

*Note.* Items are ranked from highest to lowest according to mean scores
Research Question 4 Findings

Research Question 4 asked: Was there a difference in the amount that student teachers reported individual differences between themselves and their students contributed to challenges they experienced during service learning, depending on the preservice teacher’s gender, and the placement grade? A two-way between-subject ANOVA was used to test Research Question 4. The independent variables were gender (female or male) and placement grade level (K-5, 6-8 or 9-12). The dependent variable was the average score on the twelve individual difference items described in Research Question 3. High mean scores meant preservice teachers reported that individual differences between themselves and their students contributed less to challenges they experienced at the service learning site, while low scores meant preservice teachers reported that individual differences contributed more to challenges experienced at the service learning site.

Prior to analyzing the data, the data were screened for univariate outliers and the assumptions of ANOVA were tested. Outliers were assessed by transforming raw scores to z-scores and removing any cases that exceeded a z-score of +/− 3.29, \( p < .001 \) (Tabachnik & Fidell, 2007). Cases that exceed this critical value are more than three standard deviations above the mean and represent extreme scores. No outliers were detected. Missing data was assessed using frequency tables. Out of the original 324 cases, 4 were missing data on the grade variable, 8 were missing data on the sex variable and 5 were missing data on the dependent variable. All of these cases were removed. An additional 26 cases were removed because they reported the grade of their students as K-8 or all grade levels. If these groups were included in the analysis it would create redundancy in the variables and the sample size for some of the cells would be too small to include in the analysis (i.e., only one case would be in the cell male and all grade levels and only four cases would be in the cell male and K-8). After removing the missing data, the
sample sizes for women were \( n = 108, 40 \) and 52 for K-5, 6-8 and 9-12, respectively. The sample size for males was \( n = 34, 19 \) and 30 for K-5, 6-8 and 9-12, respectively. Descriptive statistics for the dependent variable, by group are provided in Table 4.7 below.

Table 4.7

*Range, Minimum, Maximum, Mean and Standard Deviation Statistics for Dependent Variable, by Group*

<table>
<thead>
<tr>
<th>Sex</th>
<th>Grade Level</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>K-5</td>
<td>108</td>
<td>2.58</td>
<td>1.42</td>
<td>4.00</td>
<td>2.7470</td>
<td>.52920</td>
</tr>
<tr>
<td></td>
<td>6-8</td>
<td>40</td>
<td>2.50</td>
<td>1.33</td>
<td>3.83</td>
<td>2.5267</td>
<td>.60571</td>
</tr>
<tr>
<td></td>
<td>9-12</td>
<td>52</td>
<td>2.50</td>
<td>1.50</td>
<td>4.00</td>
<td>2.6591</td>
<td>.55783</td>
</tr>
<tr>
<td>Male</td>
<td>K-5</td>
<td>34</td>
<td>2.00</td>
<td>1.83</td>
<td>3.83</td>
<td>2.9027</td>
<td>.45355</td>
</tr>
<tr>
<td></td>
<td>6-8</td>
<td>19</td>
<td>1.50</td>
<td>2.08</td>
<td>3.58</td>
<td>2.8278</td>
<td>.38266</td>
</tr>
<tr>
<td></td>
<td>9-12</td>
<td>30</td>
<td>2.33</td>
<td>1.67</td>
<td>4.00</td>
<td>2.7344</td>
<td>.55587</td>
</tr>
</tbody>
</table>

The assumptions of normality and homogeneity of variance were also evaluated prior to analysis. The assumption of normality was assessed using a deleted residual histogram. The histogram appeared normal (see Figure 4.1 below), thus the assumption of normality was met. The assumption of homogeneity of variance was evaluated using Levene’s test. Levene’s test was not significant \( (F(5, 277) = 1.102, p = .0359) \), thus the assumption of homogeneity of variance was met. Since the assumptions were met the researcher proceeded with the ANOVA.
The main effect of sex was significant ($F(1, 277) = 5.913, p < .05$, partial eta squared = 0.021), but the main effect of grade level and the interaction were not significant (see Table 4.8 below). Approximately 2% of the variance in preservice teachers’ ratings of the extent to which individual differences between themselves and their students contributed to challenges they experiences at their service learning site was explained by gender (partial eta squared = 0.021). Females reported individual differences contributed to challenges more ($M = 2.644$) than males ($M = 2.822$; see Figure 4.2 below). There was not a significant mean difference in individual difference ratings depending on grade level ($M = 2.825, 2.677$ and $2.697$ for K-5, 6-8 and 9-12
respectively; see Figure 4.3 below). The difference in scores for males and females did not
depend on school grade (i.e., the interaction was not significant; see Figure 4.4 below).

Table 4.8

Model Summary for the ANOVA of Research Question 4

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3.126</td>
<td>5</td>
<td>.625</td>
<td>2.205</td>
<td>.054</td>
<td>.038</td>
</tr>
<tr>
<td>Intercept</td>
<td>1592.254</td>
<td>1</td>
<td>1592.254</td>
<td>5616.450</td>
<td>.000</td>
<td>.953</td>
</tr>
<tr>
<td>Sex</td>
<td>1.676</td>
<td>1</td>
<td>1.676</td>
<td>5.913</td>
<td>.016</td>
<td>.021</td>
</tr>
<tr>
<td>Grade Level</td>
<td>1.068</td>
<td>2</td>
<td>.534</td>
<td>1.884</td>
<td>.154</td>
<td>.013</td>
</tr>
<tr>
<td>Sex X Grade</td>
<td>.393</td>
<td>2</td>
<td>.197</td>
<td>.694</td>
<td>.501</td>
<td>.005</td>
</tr>
<tr>
<td>Error</td>
<td>78.529</td>
<td>277</td>
<td>.283</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2179.220</td>
<td>283</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>81.655</td>
<td>282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4.2. Plot of the means for individual difference scores depending on gender*
Figure 4.3. Plot of the means for individual difference scores depending on grade level
Research Question 5 Findings

Research Question 5 asked: Did preservice teachers’ service learning experiences influence their willingness to work in an under-resourced school in the future? A logistic regression was used to test Research Question 5. The predictor variables were perceptions of neighborhood safety, perception of student motivation and time spent helping students with academics. The criterion variable was whether preservice teachers reported an intention to work in an under-resourced school in the future, or not. Prior to the analysis the data were screened for univariate outliers and missing data using the same procedure described in Research Question 4.

Figure 4.4. Plot of the means for individual difference scores depending on gender and grade level. For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.
Of the original 324 cases, 14 were missing data on one of the study variables. These cases were removed. No univariate outliers were detected. The sample size after removing the missing data was \( n = 310 \). Descriptive statistics for the predictor variables included in Research Question 5 are provided in Table 4.9 below.

Table 4.9

<table>
<thead>
<tr>
<th>Variable</th>
<th>( N )</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of neighborhood safety</td>
<td>310</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>.73</td>
<td>.704</td>
</tr>
<tr>
<td>Perception of Student motivation</td>
<td>310</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>.41</td>
<td>.740</td>
</tr>
<tr>
<td>Time spent helping with academics</td>
<td>310</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>.77</td>
<td>.819</td>
</tr>
</tbody>
</table>

The data were also screened for multicollinearity using bivariate correlations. None of the variables were correlated above .70, thus multicollinearity was not an issue. After screening for missing data, outliers and multicollinearity, the researcher proceeded with the logistic regression analysis. The full model containing all predictors was statistically significant \( (\chi^2(3) = 10.097, p = 0.018) \). Between 3.2% and 4.8% of the variance in intentions to teach in under-resourced schools is explained by the set of predictor variables (Cox & Snell \( R^2 = 0.032 \), Nagelkerke \( R^2 = 0.048 \)). Time spent helping students with academics and perceptions of student motivation were both significant, unique predictors of intentions to teach in under-resourced schools (see Table 4.10 below). Perception of neighborhood safety was not a significant predictor. For each one unit decrease in ratings of time spent helping students with academics (1= Always, 4= Never), preservice teachers were 1.38 times more likely to report that their service learning experience increased their intentions to teach in an under-resourced school (OR= 0.725, Wald = 4.162, \( p = 0.041 \)). For each one unit decrease in ratings of student motivation (1= Strongly Agree, 4= 
Strongly Disagree), preservice teachers were 1.44 times more likely to report that their service learning experience increased their intentions to teach in under-resourced schools (OR= 0.693, Wald = 4.023, \( p = 0.045 \)).

Table 4.10

*Model Summary for Logistic Regression Analysis of Research Question 5*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>.E.</th>
<th>Wald df</th>
<th>df</th>
<th>p</th>
<th>R</th>
<th>Lower 95% CI</th>
<th>Upper 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of neighborhood safety</td>
<td>.200</td>
<td>189</td>
<td>.123 4</td>
<td>289</td>
<td>819</td>
<td>565</td>
<td>.185</td>
<td></td>
</tr>
<tr>
<td>Perception of student motivation</td>
<td>.367</td>
<td>183</td>
<td>.023 4</td>
<td>045</td>
<td>693</td>
<td>484</td>
<td>.992</td>
<td></td>
</tr>
<tr>
<td>Time spent helping with academics</td>
<td>.321</td>
<td>158</td>
<td>.162 4</td>
<td>041</td>
<td>725</td>
<td>532</td>
<td>.987</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Odds ratios were inverted for interpretation in above paragraph if the OR was smaller than one
Chapter 5. Results, Conclusions, and Recommendations

Multicultural service learning is essential to teacher education because it connects students to surrounding communities and raises issues about multiculturalism, race, and social justice. Multicultural service learning provides an avenue for instructors to evaluate and critique critical pedagogy in ways to better prepare preservice teachers to work effectively with diverse populations. Multicultural service learning bridges the gap between reading assignments and real life experience by asking students to use critical reflection of their experience off campus in relation to the theories that they have been taught about race, power, culture, and establish an understanding of how these social issues operate in schools and neighborhoods.

A review of the literature revealed that multicultural service learning is essential to service learning programs because it exposes students to diversity and, if implemented correctly, service learning has a positive impact on academic and civic outcomes by helping student develop a sense of social responsibility and an awareness of social injustice. Poorly structured service learning programs can have adverse effects and may re-enforce racism as opposed to diminishing it as desired. What researchers have overlooked to this point was an examination into factors that affect the changes in perception that preservice teachers encounter as a result of their multicultural service learning experiences. Very little is known about the specific factors or challenges that determine preservice teachers’ positive or negative service learning experiences, and how those factors and challenges influence preservice teachers’ desire to work in diverse and or under resourced schools.

Proponents of service learning recognize the necessity of combining service learning and multicultural education, arguing that preservice teachers directly benefit from their lived experiences in multicultural settings (Boyle-Baise, 2002; Sleeter, 2000). Supporters also view
multicultural service learning as a means to adequately address issues of power, race, and diversity (Eyler & Giles, 1999; Jacoby, 1996), and perhaps as a vehicle to attract teachers to economically disadvantaged schools (O’Grady, 2000). Those who oppose the integration of service learning into teacher education curriculum argue that there is little evidence of its effectiveness (Rimmerman, 2009), and substantial evidence of the problems that can result from poorly implemented programs (Butin, 2005; Rimmerman, 2009). Despite some opposition, the value of multicultural service learning is widely noted for its ability to foster regard for human dignity, respect for cultural diversity, support for cultural pluralism, and furtherance of social justice (Banks, 2001; Bennett, 1999; Boyle-Baise, 2002; Sleeter, 2000).

The purpose of this quantitative dissertation was to analyze how multicultural service learning affects preservice teachers’ understanding of the importance of culture, race, diversity, and power. The research questions that framed this study included:

1. Did preservice teachers report that their attitudes and knowledge about diversity issues changed as a result of service learning experience?
2. What activities did preservice teachers report impacted their learning the most during their service learning experience?
3. What individual differences between themselves and their students did student teachers report contributed often to challenges they encountered during their service learning experience?
4. Was there a difference in the amount that student teachers reported individual differences between themselves and their students contributed to challenges they experienced during service learning, depending on the preservice teacher’s gender, and the placement grade?
5. Did preservice teachers’ service learning experience influence their willingness to work in to work in an under-resourced school in the future?

These questions were answered through a cross-sectional, correlational study that explored the responses of selected undergraduate students enrolled in TE 250: Diversity, Power and Educational Opportunity using descriptive statistics, ANOVA, and logistic regression. Chapter 4 provides a full account of the data and results of the survey, and Appendixes A and B provide the raw data. The following section provides an overview of the findings.

Summary of Findings

RQ1: Attitudes toward diversity issues. Research Question 1 sought to examine the extent to which multicultural service learning affected preservice teachers’ attitude and knowledge about diversity issues. Descriptive statistics focusing on attitude and knowledge indicated that preservice teachers agreed that their experience helped them to enhance their cultural sensitivity, enhance their understanding of social inequality and to appreciate the potential that they have in making a difference for individual students. Patterns of disagreement emerged in the items that indicated attitudes of helplessness toward diversity. Students disagreed that the experience made them less likely to enter the teaching profession and that stereotypes were reinforced through their experience.

The items are ranked from highest to lowest by the mean. The items that preservice teachers reported disagreeing with the most were Realize that teaching is not the right career for me \((M = 3.76)\), Reinforce my stereotypes about lower socioeconomic status children and their parents \((M = 3.49)\) and Realize that there is little I can do to make a change in an educational organization \((M = 3.25)\). The items that preservice teachers reported agreeing with the most were Enhance my sensitivity to cultural diversity \((M = 1.80)\), Clarify my commitment to pursue a
career in teaching ($M = 1.82$), and Enhance my understanding of social inequality in relation to social issues ($M = 1.83$) and Realize there is a lot I can do to make a change for students on an individual level ($M = 1.86$).

**RQ2: Experiences of greatest impact.** Descriptive statistics were also used to address Research Question 2, which explored which activities within their service learning experience had the greatest impact. Interaction with students was found to be most impactful, while working with professionals on site and maintaining journals was found to be unhelpful to their experience. Research Question 2 asked: What activities did preservice teachers report impacted their learning the most during their service learning experience? For the activity items, preservice teachers responded to the prompt *How much of your learning came from each of the following experiences?* The scale for these items ranged from *A lot (1)* to *None at all (4)*. Descriptive statistics for the activity items are provided in Table 4.5. The activity items are ranked from highest to lowest by the mean. The activities that preservice teachers reported contributed most to their learning was *Interaction with Students* ($M = 1.85$) and the activities that preservice teachers reported contributed least to their learning was *Working with professionals at service learning sites* ($M = 2.73$) and *Reflections in journals or written assignments* ($M = 2.65$).

**RQ 3: Recognizing differences and challenges.** Research Question 3 was intended to better understand the degree to which the service learning experience encouraged preservice teachers to recognize and appreciate differences between themselves and their students. Item analysis indicated that motivation and communication and interaction styles were the factors that preservice teachers found most significant, while sexual orientation, gender and age were found to be less impactful.

The individual differences between themselves and their students that preservice teachers
reported contributed the least to challenges they encountered at the service learning site was Sexual Orientation ($M = 3.90$), Gender ($M = 3.44$) and Age ($M = 3.13$). The individual differences that preservice teachers reported contributing most to challenges they encountered at the service learning site were Motivation ($M = 2.15$) and Communication and Interaction Styles ($M = 2.28$).

**RQ 4: Differences in reported challenges based on gender and placement grade.** A two-way ANOVA was used to determine whether there was a significant mean difference in the reporting of challenges by preservice teachers during their service learning experience across 12 categories of difference. The independent variables for this analysis were gender and placement level. Analysis indicates that gender was significant ($p < 0.05$), but that grade level was not ($p = 0.154$). Females reported that individual differences across the 12 categories posted challenges for them more than males did, though differences in male and female scores did not vary significantly by grade level.

**RQ 5: Impact on intention to work in under-resourced schools in the future.** The final research question examined whether perceptions of neighborhood safety, student motivation and time spent with students predict a teacher’s intention to work in an under-resourced school in the future. Logistic regression was used to explore the predictor variables in relation to the criterion variable of intention to work in an under-resourced school. The full model containing all predictors was statistically significant ($p = 0.018$). Analysis of the individual factors further revealed that time spent helping students with academics and perceptions of student motivation were both significant, unique predictors of intentions to teach in under-resourced schools, while perception of neighborhood safety was not significant.
Restatement of Limitations

A variety of limitations naturally constrain the conclusions drawn from this research. The potential limitations discussed in Chapter 3 were affirmed during the study. Internal validity of this study may have been negatively affected by the rigor with which the survey was conducted. For example, the study design, the care taken to conduct measurements, and decisions to evaluate what was and was not measured may have affected this study (Huit, 1998). Self-report response bias may also have affected the internal validity of this study. Self-report questionnaires are inherently biased by the persons’ feelings at the time they fill out the questionnaire. If a person feels good while they are completing the survey, they may give positive answers. Likewise, if a person feels unhappy while completing the survey they might give negative responses (Cook & Campbell, 1979).

Two major sources of uncertainly are nonresponse, which occurs when a portion of the individuals sampled cannot or will not participate in the survey, and measurement problems, which occur when the respondent’s answers to questions do not provide the type of data the survey was designed to obtain (Ott & Longnecker, 2001). Survey nonresponse may result in a biased survey because the sample may not be representative of the population.

Measurement problems are often due to the specific wording of questions in a survey, the manner in which the respondent answers the survey questions, and the fashion in which an interviewer phrases questions during the interview. Examples of specific problems are as follows: inability to recall answers to questions, leading questions, and unclear wording of questions. As with any research, it is important to recognize the limitations associated with the research design and analysis, but they should not diminish the value of the research. With these
limitations noted, the following section considers the conclusions and implications stemming from this study.

Conclusions and Implications

**RQ1: Attitudes toward diversity issues.** Recent educational and behavioral conceptual framework emphasized the importance and need to situate service learning within a framework of critical multiculturalism Butin (2005). In this study, preservice teachers agreed that their attitudes about diversity issues changed as a result of their multicultural service learning experiences. According to the results of this study, the attitude changes among preservice teachers regarding diversity issues stemmed from their experiences and interaction in diverse settings. Respondents indicated that their multicultural service learning experience enhanced their cultural sensitivity and their understanding of social inequality. This finding supports the position that service learning must be situated in critical multiculturalism. Preservice teachers in this research study experienced a change in attitude and an increase in their knowledge on topics covered in their teacher education coursework as a result of their experience connecting the theories presented in class to practice during their multicultural service experience.

**Multicultural education.** The literature review described critical multiculturalism as a revolutionary approach to addressing issues of race, culture, and power. This study revealed that when preservice teachers participated in multicultural service learning, they were able to connect multicultural education with real life experiences. Preservice teachers in this study were able to increase their knowledge of issues concerning race, culture, power, and inequality as they relate to education. The findings of this study affirm the earlier work of Sleeter (2000), who found that multicultural service learning is instrumental in preparing preservice teachers to recognize the inequalities that permeate our educational systems and perpetuate social inequalities.
Institutions are challenged with providing the best possible training and opportunities to enhance teachers’ ability to be effective educators of all children regardless race, gender, or social economic status. Results from this study support the benefits of going beyond service learning and situating service learning in multiculturalism (Butin, 2010). In this study, adding multiculturalism to the service learning experience increased the preservice teachers’ abilities to understand and appreciate the importance of culture as a powerful educational tool. The results from this study may assist in the implementation of critical multiculturalism and critical curricula. Critical multiculturalism differs from multiculturalism, in that it provides an in depth analysis of institutionalized oppression and inequality in relation to education by blending several critical theories such as critical race theory, anti-racist education, and critical pedagogy (May & Sleeter, 2010).

Understanding the degree to which preservice teachers are influenced by their service learning experience is useful to researchers and practitioners because there is a body of literature that posits service learning by itself does more harm than good. For example, according to Butin (2005), service learning is framed as “a pedagogical perspective and instructional tool that can help “privileged” students gain greater insight into the life experience and perspectives of others, namely those “served” in the service learning arrangement” (p. 9). Butin implied that service learning that is framed as the evolved form of voyeurism (non-pornographic, reality television version), education has negative consequences for all stakeholders. The results of this multicultural service learning study revealed that preservice teachers agreed they learned the most about multiculturalism from interacting with students at their multicultural service learning setting.
This study speaks to the concerns of critics who argue that placing preservice students in a diverse service learning setting without exposure to multicultural education could result in inadvertently reinforcing negative stereotypes, thereby defeating the purpose of service learning (Butin, 2005). The results from this study support the belief that service learning situated within a framework of multiculturalism yields desired results such as dispelling negative stereotypes and increasing knowledge about diversity issues.

**Culturally relevant teaching.** The literature in this work expressed the need to prepare teachers for diverse student populations out weights teacher improvement and minority recruitment (Howard, 2010). This study uncovered the potential of multicultural service learning to prepare teachers from all ethnic groups to work in diverse and urban environments. As I argued elsewhere in this study, culturally responsive teaching requires teachers to understand how students learn, and to take students beyond surface-level comprehension of course content to levels that encourage decision-making, democratic thought, and social action (Banks, 2009). As a result of multicultural service learning, preservice teachers in this study are able to understand how students learn and have knowledge of why it is necessary to engage students in decision-making, democratic thought, and social action. The finding of this study reflect the findings of prior research which has indicated that, “culturally responsive pedagogy is situated in a framework that recognizes the rich and varied cultural wealth, knowledge, and skills that students from diverse groups bring to schools and a philosophical view of teaching that is dedicated to nurturing student academic, social, emotional, cultural, psychological, and physiological well-being” (Howard 2010, p. 68).

The research in this work emphasized the need for teachers to become familiar with the cultural and linguistic background of the students they serve in an effort to ready them as
teachers in diverse settings. Preservice teachers’ multicultural service learning experience in this study allowed them to become familiar with their students’ cultural and linguistic background which, as I stated above, will ready them to teach in diverse settings. I argued earlier in this work that, culturally relevant teaching is paramount to achieving equality in education. As I previously noted, teachers who subscribe to the concept of critical culturally relevant teaching as an instructional tool in the classroom are more likely to address issues affecting equality in education. I believe service learning excluding multiculturalism deprives preservice teachers of the experience necessary to recognize the benefits of culturally relevant teaching. The literature in this work shows, interrupting the cycle of inequality and oppression can counteract the lack of achievement among students of diverse backgrounds (Howard, 2010). Preservice teachers in this study agree that their multicultural service learning experience helped them to enhance their cultural sensitivity, enhance their understanding of social inequality and to appreciate the potential that they have in making a difference for individual students.

**Teacher education.** Students in this study also reported that their multicultural service learning experience enhanced their understanding of course materials covered in their Teacher Education 250 course, and disagreed that their multicultural service learning experience reinforced stereotypes about lower socioeconomic status children and their parents. Understanding the degree to which preservice teachers’ attitude and knowledge about issues of diversity are changed and improved by their multicultural service learning experience is useful to researchers and practitioners, because critical research can shape practice.

For example, this study provided detailed information about the extent to which preservice teachers’ attitudes and knowledge about diversity issues were affected due to their multicultural service learning experience. O’Grady (2000) confirmed that the majority of
teachers working in diverse settings are white females and come from suburban areas, and thus these teachers tend to have limited exposure to multicultural environments. Their experience and knowledge of race and culture beyond their own segregated environment is extremely limited as it pertains to becoming an educator in diverse urban settings. The results from this study show the degree to which multicultural service learning can influence preservice teachers’ understanding of inequality, appreciation of culture, and diversity, and can strengthen programs designed to prepare teachers for success when working in diverse environments. The findings of this study affirm O’Grady, who found everyone is influenced by culture and preservice teachers are no exception. Therefore, it is especially important that preservice teachers understand the dynamics of culture, because their lack of knowledge can hinder their ability to interact properly and productively with students from cultural backgrounds outside their own.

The findings from this study support the work of Ladson-Billing (1994), who posited that educators will be more successful if they understand the five factors that matter in the education of a multicultural population: (a) teachers’ beliefs about students; (b) curriculum content and materials; (c) instructional approaches; (d) educational setting; and (e) teacher education (p. 20). I believe multicultural education informs teachers on the necessity of culturally relevant teaching. I believe cultural awareness can guide teaching in ways that help historically disadvantaged students understand and connect information. The results from this study speak to the work of O’Grady (2000), who found if the purpose of service learning is to prepare preservice teachers to address social equality in their classrooms, it seems likely the effort revolves around critical culturally relevant teaching.

I argue elsewhere in this work that, as a result of our unequal society, curricula and practices in schools are Eurocentric by choice and therefore biased against students of color,
girls, and low-income students. Exposing and eliminating these unequal systems is one of the major goals of multicultural education (Sleeter & Grant, 2003). Preservice teachers in this study disagreed that their multicultural service learning experience created attitudes of helplessness toward diversity, or that they were less likely to enter the teaching profession due to their multicultural service learning experience. I believe multicultural service learning allows preservice teachers an opportunity to become familiar with the cultural and linguistic background of the students they serve in an effort to ready them as teachers in diverse settings.

Preservice teachers who participated in this study agreed their multicultural service learning experience enhanced their cultural sensitivity; these findings reflect the work of O’Grady (2000), who argued, “Successful teachers know how to make their teaching culturally and linguistically relevant to their students, and in order to do that, they are familiar with the cultural and linguistic background of their students” (p. 267). The research in this study uncovered that educational outcomes associated with students from culturally diverse groups are a direct result of cultural discontinuity between home and school (Howard, 2010). The findings from this study refute concerns in the literature about whether service learning does more harm than good. This study revealed there was little risk of multicultural service learning reinforcing stereotypes, and that the benefits of multicultural service learning outweigh any threat of re-enforcing negative stereotypes. This research supports Butin’s (2005) notion that there is a critical need to include multicultural service learning as a requirement in teacher education programs.

**Understanding topics covered in TE250.** The results from this study found that preservice teachers agreed their multicultural service learning experience enhanced their understanding of topics covered in TE250 including social inequality in relation to educational
issue, the competing purposes of education—democratic equality, social efficiency, social mobility, and social reproduction theory. These results affirm the earlier work of Howard (2011), who argued multicultural education is crucial for addressing issues of power, race, discrimination, inequality, and social reproduction. Respondents in this study reported their multicultural service learning experience enhanced their sensitivity to cultural diversity, and helped them develop more complex ways of analyzing problems faced by students who have difficulty in school. These findings reflect the work of Howard, who found a well-designed service learning program can advance multicultural understanding in education. As a result of multicultural service learning, preservice teachers agreed there is a lot they can do to make a change for students on an individual level. These findings also reinforce Howard’s position that critical multicultural education as a school reform movement is a promising path to ensuring educational equity for all students.

In this study, descriptive statistics focusing on attitude and knowledge indicated that preservice teachers agreed that their multicultural service learning experience enhanced their understanding of social inequality, and helped them to appreciate the potential that they have in making a difference for individual students. This research gives credence to the critical need for multicultural service learning in teacher education programs as a means to expose preservice teachers to the impact of culture and how understanding the effects of culture can improve/strengthen preservice teachers’ service learning experience. For example, in this study knowledge derived from preservice teachers’ multicultural service learning experience had a positive effect on their attitudes concerning the importance of culture. These findings are relevant because the research in this study tells us consideration must be given to the results of students being placed in an environment where their race, education, and economic status can
create an attitude of superiority (Butin, 2005). Findings from this study show that preservice teachers in a multicultural service learning environment are likely to experience an increased understanding and appreciation for cultural differences between themselves and the students they work with. In addition, this study revealed that preservice teachers who are exposed to culturally diverse environments have an increased understanding of the importance of culturally relevant teaching as a method to increase students learning.

Patterns of disagreement emerged in this study in the items that indicated attitudes of helplessness toward diversity. Preservice teachers disagreed that the experience made them less likely to enter the teaching profession and that stereotypes were reinforced through their experience. Critics have expressed concerns that placing preservice students in a diverse service learning setting without exposure to multicultural education could result in preservice students inadvertently reinforcing negative stereotypes, thereby defeating the purpose of service learning (Butin, 2005). The findings of this study supporting the value of multicultural learning speak to the work of Butin (2010), who recommended service learning be situated in the framework of critical multiculturalism, because preservice teachers need to understand the ways power, race, and diversity impact teaching practices.

The preservice teachers in this study agreed that their multicultural service learning experience increased their understanding of topics on inequalities in school systems covered in their TE250 course. The findings of this study affirm the earlier work of Sleeter (2000), who found that multicultural service learning is instrumental in preparing perservice teachers to recognize the inequalities that permeate our educational systems and perpetuate social inequalities. Findings from this study can inform curriculum developers in developing critical multicultural curricula. This study revealed that the increase in knowledge gained by preservice
teachers also helped them understand and connect topics and issues covered in their Teacher Education 250 course. Curriculum developers can use this information to implement critical multiculturalism. Critical multiculturalism differs from multiculturalism, in that it provides an in depth analysis of institutionalized oppression and inequality in relation to education by blending several critical theories such as critical race theory, anti-racist education, and critical pedagogy (May & Sleeter, 2010). Results from this study uncovered that preservice teachers are able to connect curricula with real life experience and gain a deeper understand of topics covered in their Teacher Education 250 course.

**RQ2: Experiences of greatest impact.** Given the varied experiences that take place within the service learning environment, it is helpful to understand which specific experiences and interactions are most impactful to the preservice teacher. The results from this study show that interaction with students was found to be most impactful. This finding is critical to multicultural service learning and teacher education, because preservice teachers who participate in multicultural service learning are more likely to interact with someone of a different race, culture, and socio economic background than their own. Preservice teachers in this study reported a unique opportunity to learn the value of what historically disenfranchised students bring to the education process. This research supports the belief that interacting with students can provide knowledge and resources teachers need to improve the education process. I argue elsewhere in this work that understanding and respecting students’ contributions to their education is necessary when exploring ways to close the educational and social economic gaps in this nations urban schools. Results from this study support my belief that educational institutions and programs need to focus on exploring means to gain maximum knowledge from benefits of preservice teachers’ interaction with students in diverse settings.
The results of this study reflect the findings of prior research, which has indicated that the importance of reciprocity is the concept that the students are not just learners, but are teachers as well (Bowdon et al., 2008). The recipients of the service are also both teachers and learners. They both teach one another, and work in solidarity with one another (Bowdon et al., 2008). The finding from this research, which uncovered that preservice teachers believed they learned most from interacting with their student during their multicultural service learning experience has implications for elements of an effective service learning program. The results from this work revealed that preservice teachers agreed that activities which required interaction with students were where most of their learning came from. These findings can inform practice by understanding the benefits of cognitively challenging task to enhance the service learning experience. The results from this study found working with professionals on site and maintaining journals was unhelpful to preservice teachers’ service learning experience. Prior researchers found differing results that suggest there are two essential components for a quality service learning experience: reflection and reciprocity (Rimmerman, 2009). I believe the results of this study support the need to revisit how journals are used in the service learning experience. Research in this study stressed the serious role instructors play in the service learning process as guides to facilitate reflection and reciprocity. This study has implications for the need of instructors to make journals more helpful to the learning process for preservice teachers. I suggest journals be used as tools to explore knowledge derived from preservice teacher/student interactions and address challenges teachers and students face in their service learning setting. Preservice teachers agree most of their learning came from interacting with their assigned student at the service learning site, as opposed to journaling.

I believe preservice teachers need to include their students in the journaling and reflecting
process. For example, perservice teachers and their students at the service learning site could have matching journals, which are used to discuss the results of their interactions at the end of the day. I believe this will help preservice teachers and their students increase their ability to analysis and process information as it pertains to their service learning experience. This arrangement should also help preservice teachers gain more benefits from journaling while strengthening teacher student relationships. My research in this work uncovers the importance of well-organized service learning program, where the instructors take the lead and guide the journal and reflection process (Rimmerman, 2009). Instructors need to plan ample time for guided discussions, to include whole class and group discussion, along with writing assignments and journal prompts.

I mentioned above that preservice teachers in this study reported they found professionals at their site were unhelpful to their service learning experience. These results have implications for exploring ways to improve opportunities for preservice teachers to learn from professionals at their service learning sites. I believe service learning programs need to explore the desired outcomes from interactions between preservice teachers and professionals at the service learning placement. For example, professionals can assist in reducing challenges preservice teachers experience at their service learning placement. Professionals can provide ideas and information that could support the preservice teachers’ efforts. Preservice service teachers in this study reported that their decision to teach in an under-resourced school was affected by the types of activities they were assigned to do with their service learning student. This affirms the work of Root et al. (2005), who found that a well-constructed, strong service learning program involves students in cognitively challenging tasks. Professionals at the service learning placement can make sure preservice teachers are given academic activities when interacting with students.
RQ 3: Recognizing differences and challenges. One of the goals of multicultural service learning is to enhance the preservice teachers’ awareness of differences, and the challenges that differences can impose. The foundational work of multicultural service learning is affirmed by the results of this study, which show service learning is very helpful training for making preservice teachers aware of their own culture (Howard, 2010). Item analysis indicated that motivation, communication, and interaction styles were the factors that preservice teachers found most significant, while sexual orientation, gender, and age were found to be less impactful.

Preservice teachers agreed they had difficulty with motivation, communication, and interaction styles between their students and themselves. All three of these concepts are significant in education, and can determine the quality of service learning outcomes for preservice teachers and students they are placed with. My research explains that preservice teachers need to come prepared for all aspects of their service learning experience. Preservice teachers should be capable of using service learning as a pedagogical approach through participation and instruction (Root et al., 2005). Instructors will need to provide lessons that include activities to address motivation, communication, and interaction styles. For example, the required readings for preservice teacher students should cover issues of communication between teachers and historically disenfranchised students and solutions. This research shows reading and discussion is not sufficient to prepare preservice teachers for communication challenges between their students at their service learning site and themselves. I recommend instructors include activities to prepare students for possible challenges such as role play. For example, fellow preservice teachers can assume the role of service learning site students and practice methods to break down communication barriers.

Role play can also be instrumental in finding ways to motivate students at the service
Instructors can supply materials to include educational games (reading, math, science, etc.), assign students in groups, and require them to select from the supply of materials to create activities designed to motivate students at service learning sites. Preservice teachers can practice with each other, creating a level of difficulty realistic for the population they work with at their service learning site. The instructor can also utilize materials and role play to create activities that strengthen preservice teachers’ interaction and ability to connect with their service learning students. Instructors should require preservice students participate in group and class discussion about the result of role play and other assigned activities used at their service learning sites. Instructors will need to monitor and assess students’ ability to improve communication, motivation, and interaction styles at their service learning site. I believe instructors should visit service learning sites for observations or arrange for other reliable staff to support these efforts.

In addition, relationships between service learning site professionals and preservice students can be developed by including the professionals in the observation and assessment process. This would give the professional an opportunity to contribute and support the service learning goals thereby, building a professional relationship with the preservice teacher.

The results of this study have direct implications for the benefits of multicultural service learning as a means to expose preservice teachers to cultural differences, allowing them to understand the significances of culture, and understand how culture helps to determine who has advantages in schools and how school culture reproduces social inequalities (O’Grady, 2000). The findings of this study affirm earlier work of O’Grady (2000), who found everyone is influenced by culture, and preservice teachers are no exception. Therefore, it is especially important that preservice teachers understand the dynamics of culture, because their lack of knowledge can hinder their ability to interact properly and productively with students from
cultural backgrounds outside their own cultures.

**RQ 4: Differences in reported challenges based on gender and placement grade.**

Just as students are diverse, so too are preservice teachers. Research Question 4 explored potential differences in perceptions based on gender and grade placement across 12 categories of individual difference. Females reported that individual differences across the 12 categories posted challenges for them more than males did, though differences in male and female scores did not vary significantly by grade level. The findings from this study revealed that gender showed statistical significance; this reflects the work of Nielsen (2004), who found multicultural educators seek to uncover ways gender biases take a toll in the academic, psychological, physical, and social development of girls and boys.

I believe the results from this study require in depth instructor guided class discussion among preservice students to compare interaction styles, communication methods, and problem solving approaches. Teacher educators and preservice teachers need to explore successful means to prevent/minimize difficulties as a result of social, cultural, and other individual differences between preservice teachers and service learning site students. For example, male and female students need to share and compare challenges they believe are a result of differences between service learning students and themselves. Preservice teachers can explain how they avoid or solve challenges due to differences between service learning students and themselves. Role play can also be used to address these issues. Students can develop scenarios or share actual incidents and work out positive ways to respond or avoid problems resulting from differences between service learning site students and themselves. I believe instructors will need to help preservice teachers discern challenges resulting from social, cultural, or individual differences, as opposed to other issues such as communication and interaction styles. This finding has implications for
gender-fair schools with a balance of men and women at all levels and roles (Sleeter & Grant, 1999). Teacher educators can use this information to understand how the dynamics of gender, along with race and social class, influence understanding of teaching and learning.

**RQ 5: Impact on intention to work in under-resourced settings in the future.**

Multicultural service learning can also be used to help students affirm their future intentions with regard to their teaching practice. In this study, teachers who engaged in service learning revealed that time spent helping students with academics and perceptions of student motivation were both significant, unique predictors of intentions to teach in under-resourced schools in the future. Results from this work confirm that activities assigned to preservice students for their service learning site will impact their critical decision of whether or not to teach in an under resourced school. I believe the difficulties associated with recruiting and retaining teachers for urban schools are a direct result of the preservice teachers’ multicultural service learning experience. The literature in this study expressed the importance of well-constructed service learning programs and the dire consequences of poorly organized ones (Root et al., 2005). This research exposes critical information on factors that can influence preservice teachers’ willingness to teach in under resourced school.

Preservice teachers’ multicultural service learning experience is instrumental in determining if they will consider teaching in an under resource school. In this study, preservice teachers learned the most from the students they interacted with during their multicultural service learning experience. This study revealed the benefits preservice teachers experienced from academic engagement with their assigned students helped determine their willingness to teach in an under-resource school. This study affirms the work of De Groot (2005), who found that service learning increases aspiring educators potential for appreciating uniqueness in pupils and
fosters academic learning, personal and interpersonal development.

**Recommendations for Further Study**

The individual differences that preservice teachers reported contributing most to challenges they encountered at the service learning site were *Motivation* (*M* = 2.15) and *Communication and Interaction Styles* (*M* = 2.28). Motivation, communication, and interaction styles have tremendous influence on the effectiveness of service learning for all stakeholders.

*Motivation.*

*Communication.* Little can be accomplished between the preservice teacher and service learning student without utilizing communication. I believe communication is the most important factor in building a positive relationship between preservice teachers and students at the service learning site. This study revealed that preservice teachers agreed they benefitted most from working with their students at the service learning site. I argue instructors can improve preservice teachers’ ability to communicate with their service learning students by having preservice teachers develop activities and role play to improve communication skills. I believe more research should be done in this area to understand more challenges resulting from differences in communication between preservice teachers and their service learning students.

*Interaction styles.* There is an abundance of research concerning how culture influences every aspect of our being. Research by O’Grady (2000) expressed the importance of understanding culture and problems preservice teachers can encounter resulting from cultural differences. O’Grady’s study posited that everyone is influenced by culture and preservice teachers are no exception. Based on the results of this study, I recommend preservice teachers use a journal specifically for recording challenges resulting from differences with interaction styles between them and their service learning student. Preservice teachers should record the
episodes in detail, listing their action taken to alleviate the situation plus their thoughts and feelings at the time. I believe journaling about challenges of interaction styles will help preservice teachers process the experience while away from the situation.

In addition, the preservice teachers in this study agreed journals where not helpful to their learning. I believe using journals to express and reflect on challenges between preservice teachers and their service learning students will increase the benefits of journaling. Instructors can devote small group time to discuss journals focusing on challenges of interaction styles, plus have guided class discussion to hear if peers are facing similar challenges and how they are addressing them. Instructors can also invite educators from the community for presentations on successful methods of communicating, motivating, and interacting with diverse students. I argue it is especially important that preservice teachers understand the dynamics of culture, because their lack of knowledge can hinder their ability to interact properly and productively with students from cultural backgrounds outside their own cultures. More research is needed in this area to better understand issues of communication, motivation, and interaction styles that contribute to challenges between preservice teachers and students at the service learning site. I believe qualitative research may provide deeper insight into issues of motivation, communication, and interaction styles.

Patterns of disagreement emerged in the items that indicated attitudes of helplessness toward diversity. Students disagreed that the experience made them less likely to enter the teaching profession and that stereotypes were reinforced through their experience. The items that preservice teachers reported disagreeing with the most were Realize that teaching is not the right career for me (M = 3.76), Reinforce my stereotypes about lower socioeconomic status children and their parents (M = 3.49) and Realize that there is little I can do to make a change
in an educational organization \((M = 3.25)\). In this study, preservice teachers agreed they benefited from their multicultural service learning setting, their experiences, though challenging at times, yielded glowing outcomes. This research revealed that preservice teachers are able to interact in diverse environments without re-enforcing negative stereotypes. These findings contradict prior research by Kendall et al. (1990), who found that service learning defeats its purpose by reinforcing the attitudes and beliefs it is designed to eliminate; they question whether service-learning can cause more harm than good.

In addition, preservice teachers’ multicultural service learning experience did not discourage them from pursuing education as a career, and did not convince them that they could not make change in education. Based on the literature review, I expected that the majority of preservice teachers in this study would have reported that stereotypes about lower socioeconomic status children and their parents had been reinforced. The results of this study did not indicate this, so it is important to attempt to replicate these findings to assure their validity.

Time spent helping students with academics and perceptions of student motivation were both significant, unique predictors of intentions to teach in under-resourced schools. Root et al. (2005) identified the essential elements of a strong service learning program included clear educational goals which involve students in cognitively challenging tasks. The findings from this work are vital to education programs and schools, because time spent helping students with academics and perceptions of student motivation were predictors of preservice teachers’ decision to teach in under-resource schools. Further research on factors that influence preservice teachers’ intentions to teach in under-resourced schools is necessary to examine more about predictors that reveal preservice teachers intentions to teach in under-resource schools.

The results from this study found that working with professionals on site and maintaining
journals was unhelpful to preservice teachers’ service learning experience. Prior researchers found differing results. Rimmerman’s (2009) study of service learning found that a required journal shared with the instructor can support reflection and reciprocity that enhances the service learning experience. More should be done to examine factors that determine benefits or lack of benefits to maintain journals and working with professionals at service learning sites. A mixture of qualitative and quantitative research should be implemented to further examine these issues.

There are two recommendations that might be considered as a natural extension to this study, and hold the potential to further advance findings in this area. First, future research can be done in five or 10 years, to capture changes in multicultural education and standards for teacher education as well as any trends and changes in the practice of service learning. Second, this study could be replicated with emphasis on examining breakdowns by conceptual understanding, demographic, school types (private, urban, suburban, charter), and social economic status variables. Beyond research, the application of this study also shows potential for improving practice in teacher education and educational leadership. The final section of the paper provides recommendations for improving practice based on the results of the research.

**Recommendations for Practice**

The findings from this study uncovered that preservice teachers were not prepared to handle challenges resulting from differences between their service learning student and themselves. Findings from this study can inform teacher educators about the need to explore and address challenges that may result from differences between preservice teachers and their service learning students. Findings from this study can inform teacher educators about the benefits of well monitored service learning placements to ensure preservice teachers are engaging in cognitively challenging tasks with students at their service learning site. Teacher educators can
use these findings to better prepare preservice teachers for the challenges associated with culture and language, and motivation between themselves and their students.

Findings from this study can inform curriculum developers in developing critical multicultural curricula that will help preservice teachers to better understand their own culture; issues of race, power, injustice; social reproduction; and the impact of culture as it pertains to education and social issues. Curriculum developers can use the findings from this study to expose and address gender differences and issues that may have an effect on their service learning experience. Curriculum developers can also use findings from this study to address issues of motivation that preservice teachers face when working with students in the service learning programs.

Service learning coordinators can use the findings from this study to provide guidance when selecting service learning sites. Coordinators can use these study results to ensure preservice teachers have available placements that support academic engagement between the preservice teacher and their student. Service learning coordinators can use the finding from this study to develop requirements for use of service learning placements such as: available staff to consult with preservice teachers should difficulties require assistance, assess service placement staff interest level in the service learning program, and assess preservice teachers’ ability to connect course content to service learning environment/assignments.

Lastly, program directors can use the findings from this study to re-examine the structure of their multicultural service learning programs. The findings from this study can be used to develop required assessment practices; for example, results from this study indicate the majority of preservice teacher learning came from their engagement with the student they were assigned to work with, and issues with motivation. Results from this study can be used to require
assessments that evaluate the learning and challenges between preservice teachers and their service learning student. These study findings can be used by program directors to develop service learning site requirements. For example, a guide can be created to determine site requirements that include opportunity for academic and social engagement between preservice teacher and assigned student.

Summary

The purpose of this quantitative dissertation was to analyze how multicultural service learning affects preservice teachers’ understanding of the importance of culture, race, diversity, and power. This study was premised on understanding the impact of multiculturalism, on preservice teachers’ service learning experience, factors that influenced students’ service learning outcomes, and which service learning experiences had the greatest impact on preservice teachers’ ability to connect course context and real life. The results of this study indicate that the interaction of preservice teachers with students at their service learning site was most impactful, while working with professionals on site and maintaining journals was found to be unhelpful to their experience.

This study revealed students’ service learning experience did not make them less likely to enter the teaching profession, and that stereotypes were not reinforced through their experience. Communication, interaction styles and motivation were the factors that preservice teachers found most significant in relation to differences between themselves and their students, while sexual orientation, gender, and age were found to be less impactful.

Females reported that individual differences across 12 categories posted challenges for them more than males. Differences in male and female scores did not vary significantly by grade. Lastly, the results from study indicated that time spent helping students with academics and
perceptions of student motivation were significant predictors of preservice teachers’ intentions to teach in under-resourced schools, while perception of neighborhood safety was not.

Information from this study is particularly useful to program directors, teacher educators, curriculum developers, service learning coordinators, and the study of multiculturalism as it pertains to the development of teacher education and multicultural service learning programs. The findings from this study can inform teacher educators on the benefits of well monitored service learning placements to ensure preservice teachers are engaging in cognitively challenging task at their service learning site.

The results of this study indicate that preservice teachers benefit directly from their service learning experiences, and that multicultural service learning is a valuable tool for teacher educators. The results from this study can help teacher educators better understand the impact of multicultural service learning on preservice teachers’ perception of power, race, injustice, diversity, and a desire or lack of desire to work in under resourced schools. The findings from this study support critical multiculturalism, critical pedagogy, and critical curricula in teacher education programs. This study contributes to the existing literature that focuses on the need to situate service learning within a framework of critical multiculturalism. Critical multiculturalism is a revolutionary approach to addressing issues of race, culture, and power. Critical multiculturalism provides an in depth analysis of institutionalized oppression and inequality in relation to education, it does so by blending several critical theories such as critical race theory, anti-racist education and critical pedagogy (May & Sleeter, 2010).

This study reinforced the benefits of multicultural service learning described in the literature, and contradicted some of the research in the literature. The results of this study provide insight into the benefits of understanding the role of multiculturalism as it pertains to
preservice teachers’ service learning experiences in ways that best prepare teachers to teach diverse populations.
APPENDICES
Appendix A

Renewal Application

December 3, 2010
Approval

To: Dorothea Anagnostopoulos
309 Erickson Hall

Re: IRB# 07-1180 Category: EXPEDITED 2-6, 2-7
Renewal Approval Date: December 3, 2010
Project Expiration Date: December 2, 2011

Title: Exploring How Pre-Service Teachers Learn from Multicultural Service Learning Experiences

The Institutional Review Board has completed their review of your project. I am pleased to advise you that the renewal has been approved.

This letter notes approval for data analysis only (contact with subjects and data collection is complete). Any further recruitment, data collection or contact with subjects will require IRB review and approval via a revision before implementation.

The review by the committee has found that your renewal is consistent with the continued protection of the rights and welfare of human subjects, and meets the requirements of MSU's Federal Wide Assurance and the Federal Guidelines (45 CFR 46 and 21 CFR Part 50). The protection of human subjects in research is a partnership between the IRB and the investigators. We look forward to working with you as we both fulfill our responsibilities.

Renewals: IRB approval is valid until the expiration date listed above. If you are continuing your project, you must submit an Application for Renewal application at least one month before expiration. If the project is completed, please submit an Application for Permanent Closure.

Revisions: The IRB must review any changes in the project, prior to initiation of the change. Please submit an Application for Revision to have your changes reviewed. If changes are made at the time of renewal, please include an Application for Revision with the renewal application.

Problems: If issues should arise during the conduct of the research, such as unanticipated problems, adverse events, or any problem that may increase the risk to the human subjects, notify the IRB office promptly. Forms are available to report these issues.

Please use the IRB number listed above on any forms submitted which relate to this project, or on any correspondence with the IRB office.
Good luck in your research. If we can be of further assistance, please contact us at 517-355-2180 or via email at IRB@msu.edu. Thank you for your cooperation.

Sincerely,
Harry McGee, MPH
SIRB Chair
c: Shih-pei Chang, Adam Greteman, Elnora Scott
Appendix B

TE250 Service Learning Survey

About the Survey:

The Service Learning Survey seeks to find out more about what TE250 students learn from multicultural service-learning experiences. Participation in this survey is completely voluntary. You will be asked to assemble an anonymous unique study ID for this study so that we can link data across different surveys with your consent. All results will be reported as grouped data only. The researchers will not share your survey or survey results with your instructor or other students. Only the researchers will have access to the survey data.

It will take approximately 20-25 minutes to complete the survey. When answering the questions, please consider each statement carefully, but do not spend a lot of time deliberating about a single item. Please read the statement at the beginning of each section. Then read each question and check the box that corresponds with the response that best represents your experience, actions, or opinions.

If you have any concerns or questions about the survey please contact Dorothea Anagnostopoulos, Associate Professor, College of Education, 309 Erickson Hall, East Lansing, MI 48824, phone number: 517-355-1727, email: danagnos@msu.edu, or Shih-pei Chang, doctoral student, Department of Teacher Education, 118 J Erickson Hall, East Lansing, MI 48824, email: changs12@msu.edu.
m. How would you characterize your service-learning site? (Check all that apply)

☐ General education classroom
☐ School-based after/before school program
☐ Special education classroom
☐ Bi-lingual/ESL classrooms
☐ Community-based after-school program
( Including programs located in school sites but run by community organizations e.g. the Refugee Development Center tutoring program at Eastern High School.)
☐ Other rooms during school hours

n. Overall, what racial group(s) do you work with the most?

☐ 1. White or Caucasian
☐ 2. Black or African American
☐ 3. Hispanic/Latino
☐ 4. Asian
☐ 5. Native American or Alaska Native
☐ 6. Indian American
☐ 7. Native Hawaiian
☐ 8. Pacific Islanders
☐ 9. Middle Eastern
☐ 10. Some other race ______________ (Please specify)

How often did you see or experience the following situations at your service-learning site?

7. My service-learning site is located in a safe neighborhood.
☐ Always ☐ Often ☐ Rarely ☐ Never

8. The houses and buildings in the neighborhood of my service-learning site are well cared for.
☐ Always ☐ Often ☐ Rarely ☐ Never

9. I felt safe to travel to my service-learning site.
☐ Always ☐ Often ☐ Rarely ☐ Never

10. The student or most of the students I worked with were eager to interact with me.
☐ Always ☐ Often ☐ Rarely ☐ Never

11. It was easy for me to talk to the student or most of the students I worked with.
☐ Always ☐ Often ☐ Rarely ☐ Never

12. The student or most of the students I worked with shared personal information with me.
☐ Always ☐ Often ☐ Rarely ☐ Never

13. I told the student or most of the students about myself.
☐ Always ☐ Often ☐ Rarely ☐ Never

How much do you agree or disagree with each of the following statements?

14. The neighborhood I grew up in is similar to the neighborhood of my service-learning site.
15. The students I worked with have access to a high quality education.

16. The students I worked with attend schools that have enough resources to meet their academic needs.

17. The students I worked with see diversity reflected in the curriculum.

18. The teachers of the students I worked with care a lot about their academic needs.

19. The teachers of the students I worked with are too busy to meet the needs of the students I worked with.

20. Peer groups negatively impact the academic success of students I worked with.

21. Parents negatively impact the academic success of students I worked with.

22. The students I worked with have a good chance to attend college.

23. The students I worked with are motivated to succeed in school.

24. It enhances my understanding of course materials.

25. It has made me aware of the negative stereotypes that I had about children from lower socioeconomic families.

26. It has made me aware of the negative stereotypes that I had about children who are a different race than me.

27. It enhances my understanding of social inequality in relation to educational issues.

28. It enhances my sensitivity to cultural diversity.

29. It makes me realize there is little I can do to make a change in an educational organization.

30. It reinforces my stereotypes about lower socioeconomic children and their parents.

31. It helps me clarify my commitment to pursuing a career in teaching.

32. It helps me develop more complex ways of analyzing problems faced by students who have difficulty in school.
33. It helps me form positive views of lower-class children and their families.
   □ A lot □ Some □ A little □ None at all
34. It makes me realize there is a lot I can do to make a change for students on an individual level.
   □ A lot □ Some □ A little □ None at all
35. It makes me realize that teaching is not the right career for me.
   □ A lot □ Some □ A little □ None at all
36. It increases my sense of responsibility to work with students who are disadvantaged in our society.
   □ A lot □ Some □ A little □ None at all
37. It increases the likelihood that I will choose to teach in an under-resourced school in the future.
   □ A lot □ Some □ A little □ None at all
38. It is a reality-check for me to realize that I will prefer to teach in a community similar to where I grew up in the future.
   □ A lot □ Some □ A little □ None at all

**To what extent does your service-learning enrich your understanding of the following topics covered in TE250?**

39. The competing purposes of education – democratic equality, social efficiency and social mobility.
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
40. Power and the construction of normality.
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
41. Social reproduction theory.
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is

7 **Privileges and disadvantages based on:**

42. Race and ethnicity
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
43. Social class
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
44. Gender
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
45. Sexual orientation
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
46. Ability level (learning, emotional and physical ability)
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
47. Language
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
48. Tracking
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
49. School finance
   □ A lot □ Some □ A little □ None at all □ Don’t know what the concept is
50. It is difficult to find relevant cases from my service-learning that I can draw upon to facilitate my comprehension of course concepts.
 □ A lot □ Some □ A little □ None at all

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

**SL_Q87.** I never hesitate to go out of my way to help someone in trouble.
1..... True
0..... False
9.....missing

**SL_Q88.** I have never intensely disliked anyone.
1.....True
0.... False
9.....missing

**SL_Q89.** I sometimes feel resentful when I don’t get my way.
0..... True
1..... False
9...... missing

**SL_Q90.** There have been times when I felt like rebelling against people in authority even though I knew they were right.
0..... True
1..... False
9...... missing

Width: 1
SL_Q91. I can remember “playing sick” to get out of something.

0……True
1……False
9……missing
Width: 1

SL_Q92. When I don’t know something I don’t mind admitting it.

1….. True
0….. False
9…..missing
Width: 1

SL_Q93. I am always courteous, even to people who are disagreeable.

1….. True
0….. False
9…..missing
Width: 1

SL_Q94. I would never think of letting someone else be punished for my wrong-doings.

1….. True
0….. False
9…..missing
Width: 1

SL_Q95. There have been times when I was quite jealous of the good fortune of others.

0….. True
1….. False
9……missing
SL_Q96. I am sometimes irritated by people who ask favors of me.
0..... True
1..... False
9..... missing

Thank you for taking the time to fill out this survey. We greatly appreciate your help.
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REFERENCES


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