The multidimensionality of multicultural service learning: The variable effects of social identity, context and pedagogy on pre-service teachers' learning

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ABSTRACT

Multicultural service learning (MSL) seeks to develop pre-service teachers' capacities and commitment to teach diverse student populations. We use multiple regression analyses of survey data collected from 212 pre-service teachers engaged in 22 MSL sites to assess the effects of pre-service teachers' social identities, MSL contexts, and university pedagogy on pre-service teachers' awareness of cultural bias, understanding of social inequality, and commitment to teaching diverse students. We find that pedagogical engagement positively contributes to all three outcomes. Pre-service teacher's social identities and MSL contextual factors, however, have variable effects. We explore the pedagogical and research implications of this multidimensionality.

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1. Introduction

Multicultural service learning (MSL) aims to increase pre-service teachers' understandings of culture, diversity, and social justice through engagement in communities and schools that serve low income, linguistically, and culturally diverse children. MSL has been incorporated into teacher education courses and programs in many countries, including Canada, Australia, Singapore and Israel. It has become a key component of efforts to prepare teachers capable of and committed to addressing the educational needs of culturally diverse student populations (Alviar-Martin & Ho, 2010; Anderson & Erickson, 2003; Carrington & Saggers, 2008; Cochran-Smith, Davis, & Fries, 2004; Conle et al., 2000; Lake & Jones, 2008; Melnick & Zeichner, 1998; Mitton-Kükner, Nelson, & Desrochers, 2010; Santoro & Allard, 2005; Sleeter, 2001; Tatar & Horenczyk, 2003; Wade, 2000). In the US, these efforts are made more urgent by the growing cultural divide between an increasingly diverse K–12 student body and a predominately White, middle class and monolingual teaching force, a divide that contributes to the low educational attainment of low-income students of color and a shortage of certified teachers in the largely urban schools which enroll these students (Boyd, Lankford, & Loeb, 2005; Nieto, 2000; Villegas, 2007).

A growing number of studies by teacher educators across national contexts find that MSL can increase pre-service teachers' understanding of cultural diversity and improve their views of and commitment to working with low-income students of color and linguistically diverse students (e.g., Baldwin, Buchanan, & Rudisill, 2007; Brown, 2004; Calabrese-Barton, 2000; Conner, 2010; Mitton-Kückner et al., 2010; Sleeter, 2000; Wade, 2000; Zeichner & Melnick, 1996). Some of these same studies, however, also find that pre-service teachers can retain beliefs that blame school failure on students and their families while ignoring powerful structural inequalities (Bell, Horn, & Roxas, 2007; Hones, 1997; Wade, 2000). Further, when MSL is not integrated into university coursework current studies suggest that it can reinforce pre-service teachers' negative stereotypes of non-dominant students and their families (Boyle-Baise, 1998; Ladson-Billings, 2001).

Thus, while teacher educators increasingly turn to MSL in their efforts to prepare teachers who can work effectively with diverse student populations, existing research points to what we refer to as the multidimensionality of MSL. MSL appears to facilitate pre-service teachers' learning in some areas and in some contexts, but not in others. Because most existing studies of MSL in teacher education examine the experiences of small numbers of pre-service teachers serving in one or two MSL sites, our understanding of the factors and conditions that contribute to this variability in learning outcomes remains limited. In particular, few studies have disentangled the effects of pre-service teachers' race, social class, and gender on different MSL learning outcomes or assessed the degree to which differences in MSL contexts impact these outcomes.

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The present study seeks to address this current knowledge gap. In it, we present analysis of survey data collected from 212 pre-service teachers enrolled in a US university-based teacher education course that included MSL. The pre-service teachers surveyed were placed in 22 MSL sites. Building on current MSL studies, we use multiple regression analysis to assess the effects of pre-service teachers' race, social class, and gender, MSL contexts, and pedagogical engagement in university classrooms on three key learning outcomes: 1) pre-service teachers' views of culturally and linguistically diverse students and their communities; 2) pre-service teachers' understanding of cultural diversity and social inequality and 3) pre-service teachers' commitment to serving low-income students of color. Our findings help illuminate the multidimensional nature of pre-service teachers' MSL experiences and learning. Specifically, while we find that pedagogical engagement consistently affects pre-service teachers' learning positively across all three learning outcomes, pre-service teachers' race, social class, and gender and MSL contextual factors have varying effects on the different outcomes. This multidimensionality has implications for both MSL pedagogy and research as it points to the importance of recognizing the variability of pre-service teachers' MSL experiences and the dynamic relationship among key MSL learning outcomes.

2. Review of the literature

MSL represents a distinct type of field experience in teacher education. While most field experiences, such as student teaching, seek to build pre-service teachers' understanding of their professional roles as future teachers, MSL highlights mutual learning and growth between the pre-service teacher as "service learner" and the diverse students and communities being served. Pre-service teachers are encouraged to work with K−12 students and their families and communities on a more equal footing and to perceive the students, families and community members not only as learners, but also as teachers (Boyle-Baise, 2002; Donahue, Bowyer, & Rosenberg, 2003). These reciprocal relationships are intended to facilitate pre-service teachers' development of cultural competencies, understanding of social inequality and commitment to serving historically marginalized students and communities.

Research on MSL in teacher education indicates that MSL can develop pre-service teachers' capacities in community building and empowerment (Swick, 2001), reduce their negative perceptions of low-income youth and youth of color (Baldwin et al., 2007; Bell et al., 2007; Conle et al., 2000; Santoro & Allard, 2005; Wade & Anderson, 1996), and increase their empathy for and commitment to serving marginalized students (Boyle-Baise, 2005; Calabrese-Barton, 2000; Donahue, 1999; Wade & Anderson, 1996). At the same time, some studies suggest that MSL can also discourage pre-service teachers from pursuing a future teaching career in under-resourced schools that enroll high percentages of students of color and low-income students. Pre-service teachers' can develop a sense of powerlessness in the face of the severe inequalities that they observe in and through such settings (Catapano, 2006). In addition, as noted, even when MSL improves pre-service teachers' views of culturally and economically diverse students and their understanding of cultural diversity, it can also reinforce beliefs that lead them to blame students rather than structural inequalities for school failure.

MSL studies in teacher education have pointed to a range of factors and conditions that appear to contribute to these varying outcomes. The most prominent among these are: pre-service teachers' race and social class backgrounds; the pedagogical approaches employed by university instructors; contextual variables associated with MSL sites, and the nature of the interpersonal relationships that pre-service teachers forge with K−12 students in the MSL sites.

2.1. Pre-service teachers' race, social class, and gender

MSL rests fundamentally on a group contact model in which encounters with students and adults from communities that they typically constitute as "others" provides opportunities for pre-service teachers to develop the cultural competencies they need to effectively teach culturally diverse students (Conner, 2010). In particular, interacting with low income and racial or ethnic minority students is intended to foster pre-service teachers' understanding of how race, ethnicity, and social class differences shape their own and their students' access to power, resources, and opportunities (Boyle-Baise & Langford, 2004; Zeichner & Melnick, 1996).

Following from these assumptions, a majority of MSL studies in teacher education examine how pre-service teachers' race and social class backgrounds shape their MSL experiences. In the US, most of these studies explore how White, middle-class pre-service teachers make sense of and negotiate the racial and social class differences between them and the K−12 students enrolled in MSL sites. These studies document how interacting with low-income students of color enhances pre-service teachers' awareness of their own race and social class backgrounds and how both shape their perceptions of the students they work with through MSL, their understandings of schooling, opportunity, and inequality, and their emerging teacher identities (Boyle-Baise, 1998; Brown, 2004; Conner, 2010; Cooper, 2007; Donahue, 1999; Romo & Chaves, 2006; Wade, 2000).

While many MSL studies focus on the experiences of White, middle-class pre-service teachers, a small number of studies that include working-class and pre-service teachers of color point to the importance of considering how race and social class shape pre-service teachers' MSL experiences separately as well as in tandem. For example, Boyle-Baise and Sleeter (2000) find that minority pre-service teachers are more likely than White pre-service teachers to carry out an activist role in MSL and to endorse transformative projects for school change. In another study, however, Boyle-Baise and Kilbane (2000) find that middle-class pre-service teachers of color are as reserved in their interactions with low-income children as their White, middle-class peers. Like their peers, the middle-class pre-service teachers of color struggle to overcome their prejudices and deficit views of low-income children. These studies suggest that pre-service teachers' race and social class hold varying degrees of salience for their learning.

Significantly, while pre-service teachers are predominately female, fewer studies have focused specifically on understanding how gender shapes pre-service teachers' learning through MSL. Studies of service learning in the broader undergraduate curriculum have found that gender significantly affects what undergraduates learn from MSL. For example, Eyler and Giles (1999), in their national study of service learning across more than three dozen colleges and universities in the US, found that female undergraduates were more likely to express a belief in the importance of social justice because of MSL than were male undergraduates. More remains to be known about the effects of pre-service teachers' gender on key MSL learning outcomes in teacher education.

2.2. University pedagogy

Much of the MSL research in teacher education has been conducted by teacher educators committed to enacting multicultural education philosophy and pedagogy in their own courses. Not surprisingly, MSL studies in teacher education provide detailed descriptions of the pedagogical practices teacher educators use to

integrate MSL into their university courses (Ball & Geleta, 2005; Middleton, 2003). Several instructional activities have been shown to facilitate pre-service teachers' learning about cultural diversity and social inequality. These include reflective journals/papers (Baldwin et al., 2007; Bell et al., 2007; Boyle-Baise, 1998, 2005; Calabrese-Barton, 2000; Culp, Chepyator-Thomson, & Hsu, 2009; Donahue, 1999; Donahue et al., 2003; Hsu, 2009; Miller, Dunlap, & Gonzalez, 2007), debriefing sessions (Catapano, 2006; Middleton, 2003), structured discussions (Calabrese-Barton, 2000; Donahue et al., 2003), portfolios (Karayan & Gathercoal, 2005; Wade & Yarbrough, 1996) and informal conversations between pre-service teachers and the course instructors and/or peers (Catapano, 2006; Donahue, 1999). The use of reflective journal writing appears to be particularly widespread. Indeed, pre-service teachers' reflective journals are among the most frequently cited data source drawn upon in MSL studies in teacher education, suggesting their widespread use in teacher education courses that include MSL.

2.3. MSL contexts

K−12 schools and community organizations that serve children and youth from marginalized groups are critical sites for MSL in teacher education. MSL studies in teacher education have sought to understand the site-level factors and conditions that promote pre-service teachers' learning. Some of these studies document the value of community-based MSL (Boyle-Baise, 2002; Sleeter, 2000). Teacher educators who promote a community-immersion approach assert that schools' hierarchical power relations and bureaucratic regulations inhibit pre-service teachers from developing reciprocal relationships with the children and communities they are intended to serve (Calabrese-Barton, 2000; Donahue et al., 2003; Sleeter, 2000).

In addition to the institutional nature of MSL sites (i.e., community-based versus school-based), the student populations served by the schools or community agencies have also been found to shape pre-service teachers' learning. For example, Spencer, Cox-Petersen, and Crawford (2005) and Pappamihiel (2007) found that working with ELL students through school-based tutoring and after-school academic enrichment activities positively influenced pre-service teachers' commitment to working with this group of students in the future. This included re-conceiving their role as teachers *for* ELL students rather than teachers with ELL students in their classrooms, support for inclusion of ELL education in regular classrooms, and reduction of anti-immigrant sentiments. Similarly, Kamens, Dolyniuk, and Dinardo (2003) found that mentoring high school students with mild to moderate cognitive disabilities in a job-sampling transition program helped pre-service teachers become more aware of negative attitudes toward and treatments of individuals with disabilities and improved their understanding of how to teach students with disabilities more effectively. These studies suggest that what pre-service teachers learn from MSL depends, in part, on the students they work with at their MSL sites.

Though few studies have explicitly examined how relationships with MSL site supervisors affect pre-service teachers' learning outcomes these relationships appear to be important (e.g. Boyle-Baise, 2005; Boyle-Baise & Kilbane, 2000). For example, Bell et al. (2007) found that pre-service teachers who had frequent conversations with their site supervisors about teaching pedagogies and philosophies displayed a deeper understanding of structural inequality than those who did not receive the same level of site support. Given that MSL fundamentally seeks to bridge university classrooms and K−12 schools and community organizations it is important to examine whether and how site supervisors, the personnel who are most likely to structure pre-service teachers' on-site MSL learning opportunities, have on pre-service teachers' learning.

2.4. Pre-service teachers' relationships with K−12 students in MSL sites

The nature of the relationships that pre-service teachers forge with the K−12 students they work with through MSL appears to be an important factor in determining what and how pre-service teachers learn from MSL (Baldwin et al., 2007; Bell et al., 2007; Boyle-Baise, 2002; Boyle-Baise & Kilbane, 2000; Calabrese-Barton, 2000; Culp et al., 2009; Donahue, 1999; Donahue et al., 2003; Spencer et al., 2005). Bell et al. (2007) found that pre-service teachers who were given opportunities to establish reciprocal relationships with elementary students through mentoring displayed a stronger understanding of structural inequality than did pre-service teachers who enacted conventional asymmetrical roles in which they served as more knowledgeable "service providers" for "needy" K−12 students. Similarly, in looking at what and how pre-service teachers learned about the ethical dimension of teaching, Donahue et al. (2003) found that pre-service teachers benefited greatly from forming reciprocal relationships with high school students from whom they gained insight into adolescents' perceptions and perspectives about teaching and schooling. Pre-service teachers in Calabrese-Barton's (2000) study displayed a growing child-centered focus in their lesson planning as they became closer to the children in the MSL sites and recognized the importance of making science learning more relevant to the children's lives and cultural backgrounds. Overall, pre-service teachers' reflection on how and what they learned from their relationships with students in MSL sites reveals that forming positive reciprocal relationships with MSL students positively contributes to their acceptance of diversity and awareness of structural inequality. Such relationships appear to enable pre-service teachers to look beyond their own worldviews and to acquire new understandings about the worldviews of people they have typically constituted as "others."

3. Research questions

Current studies of MSL in teacher education provide detailed descriptions of pre-service teachers' MSL experiences. While existing research points to the salience of pre-service teachers' race, social class and gender, university pedagogical practices, MSL contexts, and pre-service teachers' interpersonal relationships with K−12 students to these experiences, few studies of MSL in teacher education have sought to measure the effects of these factors on key MSL learning outcomes. Doing so can contribute to better understanding the multiple factors and conditions that shape what and how pre-service teachers learn through MSL.

The following research questions thus guide the present study:

1) How do pre-service teachers' race, social class, and gender affect what they learn through MSL?
2) What are the effects of MSL site characteristics (i.e. the type of organization, student populations, and support from site supervisors) on MSL learning outcomes?
3) What are the effects of pedagogical engagement in the university class on MSL learning outcomes?
4) How do pre-service teachers' relationships with K−12 students affect MSL learning outcomes?

4. Methods

In order to address these questions, we present analyses of survey data we collected in spring 2008, as part of a mixed methods study of MSL across 18 sections of *TE200: Diversity, Power*

and Educational Opportunity, a multicultural education course positioned early in Midwest University's (pseudonym) teacher education program. The data sources for the full study include a pre- and post-semester attitude survey, a service learning survey, student course papers, interviews, and classroom observations. For the present study, we draw on data from the service learning survey.

The development of the service learning survey entailed several steps, including reading the literature on MSL and experiential education related to multicultural teacher education, reviewing TE200 students' service learning journals and papers from previous semesters, and vetting potential items with TE200 course instructors in bi-weekly instructor meetings. In order to reduce potential validity threats derived from inappropriate content and wording of the survey questions, in December 2007, we piloted the survey with a group of eight TE200 students consisting of three African American females, two White females, two White males, and one African American male. We revised the survey based on comments and feedback from this pilot group.

The service learning survey explored the following: 1) the effects of MSL on pre-service teachers' learning about diversity issues and course concepts; 2) the degree and type of curriculum integration of MSL in classroom sessions, and 3) factors that contributed to the challenges and accomplishments pre-service teachers experienced at their MSL site. We administered the survey during the first two weeks of April 2008. Students had completed three quarters of the course and at least 6 weeks of service learning by this time.

4.1. MSL in TE200

TE200 engages students in examining how schools variously reinforce and disrupt social inequalities associated with race, social class, gender, sexual orientation, language, and ability with the goal of fostering students' commitments to teaching for social justice. Service learning in area schools and community organizations is a central course component. TE200 students complete at least 20 h of service in a local K–12 school or community organization that serves predominately low income, linguistically, and racially diverse student populations. This service includes tutoring individual and small groups of students during school hours and/or mentoring students in before- or after-school programs. TE200 students are required to maintain service learning journals and complete a final course paper in which they analyze their service learning experiences in light of course concepts and readings.

During the 2007–2008 academic year, the first author taught TE200 for eight semesters. While she taught spring semester 2008, she did not administer the survey or collect interview and observational data in her course section. The second author was the TE200 faculty supervisor. She also led the MSL research study. She had taught the course three semesters prior to data collection, though she did not teach during the semester of data collection.

During 2007–2008, TE200 instructors met regularly to read about, discuss, and revise their approaches to organizing and integrating MSL more fully into their courses. The first and second author facilitated these discussions as part of a larger effort to re-envision the course's service-learning component. That effort focused primarily on creating stronger relationships between TE200 instructors and school and community partners. The first and second author invited site supervisors from the schools and community organizations to the course instructor meetings to share their perspectives on and experiences

with the TE200 service learning component and to act as co-equals in redesigning the component. As the course faculty leader, the second author also encouraged course instructors to visit service learning sites and connect with site supervisors and staff.

The TE200 service learning component is grounded in the tenets of MSL as identified by Boyle-Baise (2002). It centers on building mutually beneficial partnerships and questioning inequality. In addition to fostering partnerships between university course instructors and service learning site staff, course instructors encourage TE200 students to develop mutual relationships with the K–12 students. Throughout the semester, instructors engage TE200 students in interrogating the meaning of "helping" to expose the deficit views and unequal power relations embedded within that ideal. This explicit focus on issues of power and inequality is central to all aspects of service learning and to the course as a whole. As stated on the TE200 syllabus, service learning is intended to enable pre-service teachers "to connect academic theories of diversity, power, and opportunity with the practices of the real world of education" and to develop "a teacher-identity that includes being a public citizen." Service learning journals and the final course paper require students to "reflect broadly on (their) own learning, beliefs and goals regarding schools, diversity, inequalities and opportunities."

While service learning in TE200 was grounded in the tenets of MSL, given the large number of course sections, course instructors retained considerable discretion in determining how they assigned students to MSL sites and how they mediated MSL through course discussions. In addition, the large number of MSL sites necessary to place over 200 pre-service teachers each semester meant that the actual experiences pre-service teachers had in their service-learning placements varied considerably and, no doubt, sometimes diverged from the type of on-site social justice focus that Boyle-Baise (2002) identifies as a key element of MSL. Given the numbers of pre-service teachers, course instructors, and MSL sites involved, TE200 offers an especially useful site for exploring the potential and challenges of incorporating MSL into teacher preparation programs on a scale larger than the small number of courses and MSL sites typically examined in current MSL studies.

4.2. Study participants

The study is based on a sample of 212 TE200 students who engaged in MSL at schools and community organizations located in the city of Greenland during spring semester, 2008. This sample includes 68.9% female and 31.3% male undergraduate pre-service teachers. In terms of race/ethnicity, 88.2% of the pre-service teachers identified themselves as White and 11.8% as racial minority including 1.9% Africa-American, 2.4% Asian-American, 0.5% Hispanic/Latino American, and 7.0% biracial or multi-racial. Among all 212 pre-service teachers, 15.6% said that they were fluent in at least one language other than English, while 84.4% identified themselves as monolingual English speakers. In terms of socioeconomic background, 3.3% identified themselves as "upper class", 42.9% "upper-middle class", 41.5% "middle class", 9.0% "lower-middle class", and 3.3% as "working class." Based on the zip-codes participants reported for the geographical location of their graduating high schools, 15.3% attended K–12 schools located in less-resourced communities with a median household income under the 50th national percentile, 78.5% went to schools in well-resourced communities with a median household income between the 50th and the 80th national percentile, and 6.2% went to schools in wealthy communities with a median household

income in the highest 20th national percentile.[1] The pre-service teachers in our sample are thus largely representative of pre-service teachers in U.S. university-based teacher preparation programs in terms of their race, social class, and gender.

4.3. MSL context

As part of programmatic efforts to prepare prospective teachers to teach historically under-served student populations, TE200 students engaged in MSL at schools or community organizations in the city of Greenland, a racially diverse, midsize, working-class urban community. According to the US Census 2000, the median household income of the city in 1999 was $34,833, which was below the national median of $41,994. Further, 13.2% of families in Greenland lived below the poverty level, a much higher percentage than the national average of 9.2%. Whites comprised 65.3% of the city's population, African Americans 21.9%, Latinos 10% and Asians 2.8%. Greenland was also a host city for refugee resettlement in the United States. In 2000, 5.9% of the city's population was foreign-born and 11.8% spoke a language other than English at home. The Greenland Public Schools served a predominately low income, racially diverse student population. In 2008, the year of the study, African Americans constituted 45.7% of Greenland Public Schools' students, Latinos 15.5%, Asians 5.7% and Whites 31.5%. Fully 75.2% of the students were classified as low income as determined by the percent receiving free and reduced lunch. Greenland and its schools thus drastically differed from the environments in which the majority of the TE200 pre-service teachers had grown up.

Survey responses indicate that, 40% of pre-service teachers completed MSL in regular school classrooms, 20% in non-regular classroom school-based sites such as tutoring rooms or programs, and 40% in community-based organizations that included educational programs for children and youth. When asked to identify the characteristics of the student populations with whom they worked most closely at their service learning placement, 46.2% of the pre-service teachers said they worked most closely with a predominantly African American student population, while 53.8% said they worked with racially diverse groups of students. Given the significant number of immigrants residing in the city, it is somewhat surprising that less than half of the pre-service teachers (42.9%) reported that they never worked with English language learners (ELL) during service learning. In addition, more than half (54.7%) said they never worked with students with special needs. Demographic variables described in this section were coded as dummy variables when used for regression analysis.

4.4. Outcomes

We constructed three dependent measures to assess pre-service teachers' service learning outcomes in relation to pre-service teachers': 1) "awareness of biases and negative stereotypes about low-income minority students and their parents," 2) "awareness of cultural diversity and structural inequalities," and 3) "commitment to disadvantaged student populations." Each of these measures represents a key learning outcome of MSL.

4.4.1. Awareness of biases and stereotypes about low-income minority students and their parents

Three items were used to assess whether the service learning experience facilitated pre-service teachers' awareness of the biases and stereotypes they held about low-income minority students and parents. These items were: 1) service learning "has made me aware of the negative stereotypes that I had about children from lower socioeconomic families," 2) service learning "has made me aware of the negative stereotypes that I had about children who are a different race than me," and 3) service learning "helps me form positive views of lower-class children and their families." All items had a 4-point response categories (4 = a lot to 1 = none at all). Cronbach's alpha for this index was 0.74.

4.4.2. Awareness of cultural diversity and structural inequalities

Pre-service teachers were asked three questions to evaluate their awareness of cultural diversity and structural inequalities as a result of their service-learning experience. These questions included: 1) service learning "enhances my understanding of social inequality in relation to educational issues," 2) service learning "enhances my sensitivity to cultural diversity," and 3) service learning "helps me develop more complex ways of analyzing problems faced by students who have difficulty in school." These items were rated on a 4-point scale (4 = a lot to 1 = none at all). Cronbach's alpha for this index was 0.73.

4.4.3. Commitment to disadvantaged student populations

We used pre-service teachers' responses to the question, "service learning increases the likelihood that I will choose to teach in an under-resourced school in the future" to tap their "commitment to disadvantaged student populations". Pre-service teachers were asked to rate, on a 4-point scale (4 = a lot to 1 = none at all), the effect of service learning on their willingness to teach in under-resourced schools.

4.5. Independent variables

Guided by our review of MSL studies in teacher education, we identified a set of independent variables associated with pre-service teachers' social identities, MSL settings and university pedagogy.

4.5.1. Pre-service teachers' race, social class, and gender

As we note above, existing research in teacher education documents the salience of pre-service teachers' race and social class to their MSL experiences. In this study, we examine how pre-service teachers' race, social class, *and* gender influence their MSL learning outcomes. We conceive of race, social class, and gender as social identities. Social identity refers to both a person's membership in a social category or group and the importance that membership holds for her (Tajfel, 1978; Tajfel & Turner, 1979). Social identities prescribe how members of a group should think, feel, and behave, and provide the basis for how people evaluate themselves and others based on their group memberships (Hogg, Terry, & White, 1995).

Because individuals belong to any number of social groups, e.g., student, US citizen, suburbanite, they have multiple social identities. Given the persistence of structural inequalities associated with race, social class, and gender, however, these categories are powerful sources of social identity (Hogg & Williams, 2000).

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[1] The index of median household income used in the present study was based on the information retrieved from Census 2000 database and historical records of income dispersion provided by the U.S Census Bureau. According to the data from the U.S. Census Bureau, the upper-limit of household income at the nation's lowest 20th percentile was 17,955 dollars in 2000, 42,000 dollars was the median (i.e. 50th percentile), and the upper-limit for the 80th percentile was 81, 960 dollars (data retrieved at http://www.census.gov/hhes/www/income/histinc/ie1.html). In addition, the Census Bureau offers customized search service for Census 2000 database at its web search engine American FactFinders (http://factfinder.census.gov/home/saff/main.html?_lang=en), which allowed us to retrieve demographic, economic, housing and geographic data of individual neighborhoods using the zip-codes offered by our participants.

Membership within these categories profoundly shapes *both* how individuals view themselves and others *and* their access to power, resources, and opportunities. At the same time, which of these social identities are salient to an individual depends on the social context and the degree to which an individual interacts with those who do or do not share her group(s) membership (Hogg et al., 1995).

The idea of social identity is particular relevant to research on MSL. As we note above, MSL fundamentally rests on a group contact model in which interaction with people perceived as belonging to "other" social groups is intended both to make pre-service teachers more aware of their own group memberships and increase their understanding of how membership in different groups shapes access to power, opportunity, and resources. Conceiving of race, social class, and gender as social identities raises questions of when each becomes salient to pre-service teachers' learning. Addressing these questions enables us to disentangle their effects.

We drew on pre-service teachers' self-reports of their race, social class, and gender on survey items to measure the effects of pre-service teachers' social identities on MSL learning outcomes. We further reduced pre-service teachers' SES background into three categories for our regression analysis. We combined upper and upper-middle class identified pre-service teachers into one group, kept middle-class identified pre-service teachers as a second group, and combined lower-middle and working-class identified pre-service teachers into the third group.

4.5.2. MSL contexts

MSL studies have identified several aspects of MSL sites that appear to shape pre-service teachers' learning. We constructed two variables to assess the effects of the institutional nature of MSL sites — non-regular classrooms within schools and community organizations. We also included variables that reflected pre-service teachers' exposure to ELL students, special education students, and African American students. In a previous report (Anagnostopoulos, Chang, & Omae, 2011), we found that MSL sites that serve predominately African American students were de-privileging spaces for White, middle-class pre-service teachers who constitute the majority of pre-service teachers enrolled in US university-based teacher preparation programs. These pre-service teachers perceived the racial and class differences between themselves and the African American students as obstacles to working effectively with students in these settings.

Finally, we constructed a variable that captured support from site supervisors, using four survey items to construct this index: 1) "my site supervisor was accessible and offered me appropriate guidance, feedback and supervision;" 2) "staff members at the site were helpful when I had questions or needed guidance;" 3) "I was left alone without supervision during my service learning hours;" and 4) "my site supervisor and staff members at the site valued and appreciated my work." Pre-service teachers were asked to indicate the degree of supervision and guidance their site supervisors provided to support their duties on a 4-point scale ($4 =$ always to $1 =$ never). Cronbach's alpha for this index was 0.72.

4.5.3. Pedagogical engagement in TE200

To assess the intensity of pedagogical engagement in TE200, we looked at how pre-service teachers' service learning experiences were integrated into classroom discussions. We used six items to capture a range of opportunities for pre-service teachers to *talk about* their experiences with their peers and the instructor in class. These items were: 1) "how often does your instructor invite students to connect their service learning experiences with course conceptions during class sessions;" 2) "how often do students in your TE200 class raise questions or talk about their service learning experiences when the class is discussing course materials during

class sessions;" 3) "the instructor prompted students to share their service learning experiences in whole class discussions without the instructor directing students to address specific issues or questions;" 4) "the instructor identified specific issues or questions to structure students' sharing of their service learning experiences;" 5) "the instructor arranged students into small groups to discuss their service learning experiences <u>without</u> being asked to address specific issues or questions;" 6) "the instructor arranged students into small groups to discuss their service-learning experiences in relation to specific issues or questions identified by the instructor". Respondents were asked to rate these questions on a 5-point scale ($5 =$ at least once a week to $1 =$ never). Cronbach's alpha for this index was 0.80.

Although existing studies suggest that journaling is a useful tool to engage service-learning students in deep reflection of their experiences (Bell et al., 2007; Hollis, 2004; Pappamihiel, 2007; Sullivan-Catlin, 2002; Weisskirch, 2003), we do not include items related to written assignments in our analysis. On the survey, we asked students to report on the number of service-learning journals they were asked to write and whether their instructors used "one general prompt" to guide their journal writing over the semester or "different prompts." These items allowed us to examine whether the frequency and focus of journaling differed across sections and whether either or both had an impact on MSL outcomes. Our preliminary analysis found no significance variance on these items across sections. We believe this is because all course sections required students to complete reflective journals during service learning and a final paper on how service learning contributed to their understanding of course concepts. The intensity of classroom discussions thus provides a more reliable indicator of pedagogical engagement.

4.5.4. Pre-service teachers' relationship with K−12 students in MSL sites

Finally, we constructed an independent variable to assess the effects of pre-service teachers' interpersonal relationships with students on their learning. We designed four questions to capture the dynamics of interaction between pre-service teachers and their K−12 students: 1) "the student or most of the students I worked with shared personal information with me;" 2) "the student or most of the students I worked with were eager to interact with me;" 3) "It was easy for me to talk to the student or most of the students I worked with;" and 4) "I told the student or most of the students about myself." These questions were rated on a 4-point scale ($4 =$ always to $1 =$ never). Cronbach's alpha for this index was 0.69.

4.6. Analytical strategy

We used an ordinary least squares (OLS) linear multiple regression analysis to investigate the effects of these independent variables on pre-service teachers' service-learning outcomes. Table 1 provides an overview of means, standard deviations, and descriptions for variables used in the regression models. Tables 2−5 present the standardized regression coefficients from our analysis.

5. Findings

By considering each key MSL learning outcome separately, our analysis illuminates the multidimensional nature of pre-service teachers' learning and the factors and conditions that contribute to it. We review the effects of each of our independent variables on the different MSL learning outcomes below.

Table 1
Means, standard deviations, and descriptions for variables used in the analysis.

Names of variable	N	Description	Mean	SD
Learning outcomes				
Awareness of stereotypes and biases	207	3 = None at all to 12 = a lot (three 4-point Likert items)	8.32	2.27
Awareness of diversity and inequalities	210	3 = None at all to 12 = a lot (three 4-point Likert items)	9.52	2.02
Commitment to disadvantaged student populations	211	1 = None at all to 4 = a lot (one 4-point Likert item)	2.23	0.93
Pre-service teachers' social identities				
Race: White	212	0 = Racial minority, 1 = White	0.88	0.32
Gender: female	212	0 = Male, 1 = female	0.69	0.46
SES: upper/upper middle	212	0 = Middle class, 1 = upper/ upper-middle class	0.46	0.50
SES: lower middle/ working	212	0 = Middle class, 1 = upper/ upper-middle class	0.12	0.33
Schooling: less-resourced	209	0 = Well-resourced communities, 1 = less-resourced communities	0.15	0.36
Schooling: wealthy	209	0 = Well-resourced communities, 1 = wealthy communities	0.06	0.24
MSL contexts				
SL site: non-regular classrooms	212	0 = Regular classrooms, 1 = non-regular classrooms	0.20	0.40
SL site: community organization	212	0 = Regular classrooms, 1 = community organizations	0.40	0.49
Exposure: ELL students	212	0 = No exposure to ELL students, 1 = some exposure to ELL students	0.57	0.50
Exposure: special ed students	212	0 = No exposure to special education students, 1 = Some exposure to special education students	0.45	0.50
Exposure: African American students	212	0 = Racially-mixed student groups, 1 = predominantly African American student groups	0.46	0.50
Support from site supervisors	205	4 = Never to 16 = always (four 4-point Likert items)	11.77	2.57
Pedagogical engagement in TE200	207	6 = Never to 30 = at least once a week (six 5-point Likert items)	22.60	4.85
Interpersonal relationships with K−12 students	210	4 = Never to 16 = always (four 4-point Likert items)	11.30	2.15

5.1. The effects of pre-service teachers' race, social class, and gender on MSL outcomes

Overall, pre-service teachers' race, social class, and gender had varied effects on the different MSL learning outcomes. As Table 2 reports, pre-service teachers' race, social class, and gender all significantly affected pre-service teachers' awareness of their biases and negative stereotypes about low-income minority students and their parents. Standardized coefficients (β) indicate that White ($\beta = 0.143$, $t(179) = 2.139$, $p < 0.05$) and female pre-service teachers ($\beta = 0.283$, $t(179) = 4.099$, $p < 0.001$) became more aware of their biases than did pre-service teachers of color and male pre-service teachers, respectively. Lower-middle and working-class pre-service teachers were also significantly more likely to report that MSL increased their awareness of their biases and negative stereotypes toward low-income students of color than were middle class or wealthy pre-service teachers ($\beta = 0.158$, $t(179) = 2.118$, $p < 0.05$).

A different pattern of effects arises when we consider the understanding of cultural diversity and structural inequalities that pre-service teachers gain from MSL. Table 3 indicates that pre-service teachers' gender ($\beta = 0.222$, $t(181) = 3.029$, $p < 0.01$) significantly affects their understanding of cultural diversity and structural inequalities with female pre-service teachers being significantly more likely than their male peers to report that MSL increased their learning on this outcome. Pre-service teachers' social class had only a minimally significant impact on this outcome ($\beta = 0.131$, $t(181) = 1.655$, $p < 0.1$), while race had no significant effect.

As Table 4 indicates, pre-service teachers' race did have a minimally significant effect on their commitment to teaching disadvantaged students in under-resourced schools. Here, White pre-service teachers were more likely than pre-service teachers' of color to report that MSL negatively affected their commitment to working in under-resourced schools ($\beta = -0.130$, $t(181) = -1.786$, $p < 0.1$). Neither pre-service teachers' gender nor social class significantly affected this commitment.

5.2. The effects of MSL contexts on MSL outcomes

Our analysis indicates that only two aspects of MSL contexts, supportive site supervisors and exposure to ELL students, appear to

Table 2
Estimates of predictors on pre-service teachers' awareness of biases and negative stereotypes about low-income minority students and their parents.

Independent variables	Dependent variable			
	Awareness of biases and negative stereotypes			
	Unstandardized coefficients		Standardized coefficients	t
	B	Std. error	β	
Pre-service teachers' demographics				
Race: White	0.449	0.210	0.143	2.139*
Gender: female	0.601	0.147	0.283	4.099***
SES: upper/upper middle	−0.147	0.143	−0.073	−1.026
SES: lower middle/working	0.480	0.227	0.158	2.118*
Schooling: less-resourced	−0.565	0.201	−0.202	−2.820**
Schooling: wealthy	0.053	0.266	0.013	0.198
Contexts of service-learning placement				
SL site: non-regular classrooms	−0.082	0.190	−0.033	−0.431
SL site: community organization	−0.099	0.171	−0.049	−0.581
Exposure: ELL students	0.160	0.158	0.079	1.009
Exposure: Special ed students	0.055	0.135	0.027	0.406
Exposure: African American students	0.018	0.136	0.009	0.132
Support from site supervisors	0.221	0.068	0.220	3.259**
Pedagogical engagement in TE200	0.290	0.069	0.291	4.219***
Interpersonal relationships with students	0.104	0.075	0.105	1.398
Constant	−0.712	0.255		−2.786
Adjusted R square			0.203	

$^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

Table 3
Estimates of predictors on pre-service teachers' awareness of cultural diversity and structural inequalities.

Independent variables	Dependent variable			
	Awareness of cultural diversity and structural inequalities			
	Unstandardized coefficients		Standardized coefficients	t
	B	Std. error	β	
Pre-service teachers' demographics				
Race: White	0.145	0.223	0.046	0.652
Gender: female	0.473	0.156	0.222	3.029**
SES: upper/upper middle	−0.074	0.153	−0.037	−0.481
SES: lower middle/working	0.386	0.233	0.131	1.655[†]
Schooling: less-resourced	−0.124	0.211	−0.045	−0.588
Schooling: wealthy	−0.031	0.283	−0.008	−0.110
Contexts of service-learning placement				
SL site: non-regular classrooms	−0.018	0.203	−0.007	−0.088
SL site: community organization	0.074	0.181	0.036	0.409
Exposure: ELL students	0.035	0.168	0.017	0.206
Exposure: special ed students	0.051	0.142	0.026	0.361
Exposure: African American students	−0.050	0.144	−0.025	−0.345
Support from site supervisors	0.122	0.072	0.121	1.691[†]
Pedagogical engagement in TE200	0.210	0.073	0.211	2.884**
Interpersonal relationships with students	0.216	0.079	0.216	2.739**
Constant	−0.440	0.272		−1.618
Adjusted R square			0.092	

[†] $p < 0.1$, *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

significantly impact pre-service teachers' learning. Table 2 indicates that the more support pre-service teachers received from their MSL site supervisors the more likely they were to report that they became aware of their biases and negative stereotypes toward low-income students and students of color ($\beta = 0.220$, $t(179) = 3.259$, $p < 0.01$). Table 3 indicates that site supervisor support also positively influenced pre-service teachers' understanding of cultural diversity and structural inequalities, though the effect was minimally significant ($\beta = 0.121$, $t(181) = 1.691$, $p < 0.1$). Table 4 shows that pre-service teachers who worked with ELL students were also slightly more likely to display a stronger commitment to working with disadvantaged students than those pre-service teachers who did not work with ELL students ($\beta = 0.145$, $t(181) = 1.703$, $p < 0.1$).

Interestingly, though some MSL studies highlight the positive contributions community organizations make to pre-service teachers' learning, we did not find the institutional nature of the MSL setting to be significant. There was no significant difference in learning outcomes among pre-service teachers who completed MSL in regular school classrooms, non-regular school classrooms, or community organizations.

5.3. The effects of pedagogical engagement in university courses on MSL outcomes

Among all our independent variables, only pedagogical engagement in TE200 university classrooms had a positive

Table 4
Estimates of predictors on pre-service teachers' commitment to disadvantaged student populations.

Independent variables	Dependent variable			
	Commitment to disadvantaged student populations			
	Unstandardized coefficients		Standardized coefficients	t
	B	Std. error	β	
Pre-service teachers' demographics				
Race: White	−0.420	0.235	−0.130	−1.786[†]
Gender: female	0.159	0.161	0.074	0.985
SES: upper/upper middle	−0.205	0.157	−0.103	−1.305
SES: lower middle/working	0.090	0.237	0.031	0.379
Schooling: less-resourced	−0.024	0.210	−0.009	−0.115
Schooling: wealthy	0.296	0.289	0.074	1.022
MSL contexts				
SL site: non-regular classrooms	0.027	0.204	0.011	0.133
SL site: community organization	−0.112	0.185	−0.055	−0.605
Exposure: ELL students	0.292	0.171	0.145	1.703[†]
Exposure: special ed students	0.190	0.145	0.095	1.305
Exposure: African American students	−0.042	0.147	−0.021	−0.285
Support from site supervisors	0.052	0.073	0.053	0.715
Pedagogical engagement in TE200	0.150	0.074	0.150	2.017*
Interpersonal relationships with students	0.142	0.080	0.143	1.774[†]
Constant	0.119	0.282		0.423
Adjusted R square			0.050	

[†] $p < 0.1$, *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

Table 5
Estimates of predictors on pre-service teachers' interpersonal relationships with K–12 students.

Independent variables	Dependent variable			
	Interpersonal relationships with K–12 students			
	Unstandardized coefficients		Standardized coefficients	t
	B	Std. error	β	
Pre-service teachers' demographics				
Race: White	0.069	0.207	0.022	0.332
Gender: female	0.088	0.146	0.040	0.600
SES: upper/upper middle	−0.269	0.142	−0.133	−1.901[†]
SES: lower middle/working	−0.680	0.214	−0.223	−3.175**
Schooling: less-resourced	0.027	0.188	0.010	0.145
Schooling: wealthy	−0.009	0.270	−0.002	−0.035
MSL contexts				
SL site: non-regular classrooms	−0.597	0.181	−0.236	−3.302**
SL site: community organization	−0.664	0.162	−0.322	−4.102***
Exposure: ELL students	−0.042	0.155	−0.021	−0.272
Exposure: special ed students	0.398	0.130	0.196	3.063**
Exposure: African American students	−0.273	0.133	−0.135	−2.051*
Constant	0.391	0.249		1.574
Adjusted R square			0.175	

$^{†}p < 0.1$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

significant effect on all three MSL learning outcomes. As Tables 2–4 indicate, pre-service teachers who engaged in more intensive discussions in their university course seminars, as compared to those with less opportunities to talk about their MSL experience in class, were more likely to report that MSL increased their awareness of their biases and negative stereotypes ($\beta = 0.291$, $t(179) = 4.219$, $p < 0.001$), their understanding of cultural diversity and structural inequalities ($\beta = 0.211$, $t(181) = 2.884$, $p < 0.01$), and their commitment to working with disadvantaged students in under-resourced schools ($\beta = 0.150$, $t(181) = 2.017$, $p < 0.05$).

5.4. Pre-service teachers' relationships with K–12 students and MSL outcomes

Finally, we explore factors that contribute to pre-service teachers' development of close relationships with K–12 students at their MSL sites. MSL assumes that by establishing interpersonal relationships across race, social class, and other social differences, pre-service teachers will become more aware of the struggles and challenges facing children and youth from historically under-served groups and, thus, feel more responsible for teaching and advocating for historically under-served student populations. Given the importance of this assumption, we explored the relationships between pre-service teachers' interpersonal relationships with K–12 students, pre-service teachers' race, social class, and gender, MSL contextual variables and MSL outcomes.

As Tables 2–4 indicate, we found that positive interpersonal relationships with K–12 students facilitates pre-service teachers' understanding of cultural diversity and structural inequalities ($\beta = 0.216$, $t(181) = 2.739$, $p < 0.01$) and, to a lesser extent, their commitment to working with disadvantaged students after MSL ($\beta = 0.143$, $t(181) = 1.774$, $p < 0.1$). It had no significant effect, however, on pre-service teachers' awareness of biases and negative stereotypes.

Table 5 reports the results of our analysis of the effects of our independent variables on pre-service teachers' relationship with K–12 students. The findings indicate pre-service teachers' social class had a significant effect on their relationships with K–12 students. Both upper/upper-middle class and lower-middle/working-class pre-service teachers scored lower than their middle-class counterparts on their easiness and closeness with the students ($\beta = -0.133$, $t(195) = -1.901$, $p < 0.1$ and $\beta = -0.223$, $t(195) = -3.175$, $p < 0.01$, respectively). Pre-service teachers' race, gender and schooling background had no significant effects.

Table 5 also highlights those aspects of MSL contexts that significantly affected pre-service teachers' relationships with K–12 students. Here, the institutional nature of the MSL contexts mattered. Compared with pre-service teachers placed in regular classrooms, those placed in non-regular classrooms ($\beta = -0.236$, $t(195) = -3.302$, $p < 0.01$) and in community organizations ($\beta = -0.322$, $t(195) = -4.102$, $p < 0.001$) were significantly less likely to report having positive relationships with K–12 students. Moreover, pre-service teachers who worked mostly with students with special needs were more likely to report having close interactions with their students ($\beta = 0.196$, $t(195) = 3.063$, $p < 0.01$). In contrast, pre-service teachers who worked with mostly African American student as compared to those who worked with racially-mixed student groups were more likely to report feeling less comfortable and less close with students in the MSL sites. The difference was statistically significant ($\beta = -0.135$, $t(195) = -2.051$, $p < 0.05$).

5.5. Limitations

It is important to note that our findings regarding the effects of pre-service teachers' race, social class, and gender must be read in light of the highly homogenous pre-service teacher population in our study and in US university-based teacher preparation programs, more generally. In the US, the overwhelming majority of pre-service teachers are White, middle class, and female. The lack of demographic variation in our study sample is one that is likely to confront much survey-based research on teacher education. Our finding that pre-service teachers' race, social class, and gender have variable effects on MSL outcomes is, in part, an artifact of this homogeneity. Given this homogeneity, the minimal significance of race, social class, and gender on some of the MSL learning outcomes might signal more powerful effects.

6. Discussion

Over the past decade, MSL has become an increasingly common component of teacher education programs in several nations.

Though studies of MSL in teacher education generally document its potential to improve pre-service teachers' understanding of cultural diversity and their commitment to working with students who they typically constitute as "other," the existing research also suggests that the nature of pre-service teachers' learning through MSL is multidimensional. MSL appears to facilitate pre-service teachers' learning in some domains while having minimal or negative impact on their learning in other domains. To date, the predominance of small scale studies, while providing detailed descriptions of potentially powerful MSL experiences, has not specified the factors and conditions that contribute to these variable effects. The present study aimed to address this limitation. In doing so, the study both substantiates and extends current understandings of the potential and challenges of using MSL to prepare teachers committed to and effective in teaching diverse students.

Like previous studies, we find that integrating pre-service teachers' MSL experiences into coursework is critical to developing their awareness of their own ethnocentric views, understanding of cultural diversity and structural inequality, and their commitment to working with non-dominant children and youth. In particular, our findings indicate that regularly engaging pre-service teachers in classroom discussions about their MSL experiences is critical to their learning. This finding helps to flesh out an effective MSL pedagogy. Much prior research has shown how the use of writing, especially reflective journaling (Bell et al., 2007; Carrington & Saggers, 2008; Pappamihiel, 2007; Weisskirch, 2003), facilitates pre-service teachers' deeper understanding of cultural diversity. Our findings suggest that classroom discussions can have similarly powerful effects. Indeed, the opportunity to participate in on-going discussions of MSL in their university classrooms was the only factor we explored that had significant positive effects on all three MSL learning outcomes. While many MSL studies have utilized pre-service teachers' written work as central data sources, our findings suggests the need for examining classroom discussions of MSL more fully to understand how they mediate pre-service teachers' MSL experiences and contribute to pre-service teachers' learning.

Also like prior studies, our findings indicate that receiving support from MSL site personnel facilitates pre-service teachers' learning (Bell et al., 2007; Boyle-Baise, 2005; Boyle-Baise & Kilbane, 2000). Given that the environments in which MSL often takes place, i.e., lower-resourced schools and community organizations, supportive site personnel are likely to help reduce the unease that pre-service teachers experience as they confront contexts that differ so dramatically from those in which they were raised. Supportive site personnel can act as boundary spanners who assist pre-service teachers in both learning about and becoming active in environments that are often characterized by the considerable challenges associated with poverty and insufficient resources. In our own work with MSL, we focused much of our efforts on creating stronger connections between university course instructors and MSL site personnel. Because MSL is fundamentally a multi-terrain activity, that is, it stretches across the university and school classrooms in which pre-service teachers learn to teach (Anagnostopoulos, Smith, & Basmadjian, 2007), such relationships merit much more attention by teacher educators and researchers, alike.

Though our findings substantiate the importance of MSL site supervision, our study does raise some questions about the relative merit of community-based service-learning sites that other studies highlight (Calabrese-Barton, 2000; Sleeter, 2000). Although we did not find a significant relationship between placement type and learning outcomes, we did find that pre-service teachers in regular classrooms expressed more positive relationships with their students than did those at community organizations. This runs counter to other studies that find that the lack of entrenched power

relations in community organizations enables pre-service teachers to form more equitable relationships with marginalized students (Boyle-Baise, 2005; Mitton-Kückner et al., 2010). We suspect that the regularities and familiarities of schooling might work, however, to reduce the feelings of discomfort and unease that pre-service teachers experience in under-resourced settings and, therefore, facilitate their learning. Given the persistence of funding challenges and the drop-in nature of many community organizations that serve children and youth, such organizations might not provide sufficient organizational stability to facilitate pre-service teacher learning.

Importantly, studies that promote community organizations as MSL sites tend to be conducted by teacher educators who work with their pre-service teachers at the community sites. In these instances, the teacher educators might be playing the role of supportive site supervisors that we found was helpful to pre-service teachers' learning. Again, identifying and understanding the ways in which both teacher educators and MSL site personnel act as boundary spanners appears to be a fruitful avenue for further program development and research.

Our findings also extend current studies of MSL in teacher education by illuminating the varying degrees of salience that race, social class, *and* gender have for pre-service teachers' learning. One of the central aims of MSL is to deepen pre-service teachers' understanding of how inequalities associated with race, social class, and other social differences shape their own and their students' lives and schooling experiences. Existing MSL studies in teacher education provide detailed descriptions of how pre-service teachers' navigate the social differences they encounter between themselves and the students they work with through MSL. Our study indicates that, as they navigate these differences, pre-service teachers' own social identities and those of the students they work with through MSL have varying effects on their learning.

Many studies of MSL in teacher education have examined how pre-service teachers make sense of their own and their students' race and ethnicity. These studies show how MSL can enable pre-service teachers to overcome their negative perceptions of students who are racially different from them and increase their commitment to working with these students in the future. Our study partially substantiates this finding though we also find that MSL has different effects depending on the pre-service teachers' race. While the White pre-service teachers in our study became more aware of the negative perceptions they held of low-income students of color through MSL, pre-service teachers of color were more likely to report that MSL increased their commitment to teaching disadvantaged students. This finding suggests that White and pre-service teachers of color learn different things through MSL.

The race and ethnicity of K–12 students also matter to MSL learning outcomes. We found that working with ELL students significantly increased pre-service teachers' commitment to teach disadvantaged students. This suggests that MSL enabled the largely White pre-service teachers in our sample to bridge the social distance between themselves and ELL students who are often racially and ethnically different from them. At the same time, we also found that completing MSL in sites that served predominately African American students was particularly challenging for the predominately White pre-service teachers. These settings appear to be particularly potent de-privileging sites for White pre-service teachers (Anagnostopoulos, et.al., 2011). The settings increase the salience of White pre-service teachers' own racial identity for them. While this can deepen their understanding of racial differences and the inequalities associated with them, these settings can also be sites on which White pre-service teachers reinforce their social distance from African American students.

MSL studies often report on projects that engage pre-service teachers with a particular social group as categorized by race, language, or ability. They often assume that engagement with one subordinated group will provide pre-service teachers insight into working with other subordinated groups and enhance their understanding of cultural diversity and social inequality more generally. In this sense, what pre-service teachers learn about diversity and inequality through MSL is often viewed monolithically. Our findings regarding the effects of working with ELL and African American students on pre-service teachers' learning and interpersonal relationships with their students thus challenge this view.

While many MSL studies highlight issues of race, our study also illuminates how social class affects what pre-service teachers learn through MSL. In particular, we find that MSL might be especially challenging for working-class pre-service teachers. MSL significantly enhances working-class pre-service teachers' awareness of their own negative stereotypes of low-income students of color and, to some extent, of cultural diversity and structural inequality. At the same time, working-class pre-service teachers appear to have significantly more negative relationships with the low-income students of color they encounter in their MSL sites than do their middle and upper class peers. These negative relationships might help explain our finding that MSL did not contribute to working-class pre-service teachers' commitment to working with low-income students of color in the future. MSL thus appears to be both a source of powerful learning for working-class pre-service teachers and of considerable tension. Given the relative dearth of studies that explicitly examine working-class pre-service teachers' MSL experiences, our study suggests that more research is needed to understand better the particular challenges that MSL present for working-class pre-service teachers.

Finally, our study significantly extends current research on the effects of pre-service teachers' gender on their MSL learning outcomes. Though the majority of pre-service teachers are female, few studies of MSL in teacher education have specifically examined how gender shapes pre-service teachers' MSL experiences and learning outcomes. We find MSL deepens both female pre-service teachers' awareness of negative stereotypes of low-income students of color and their understanding of cultural diversity and structural inequalities. At the same time, female students are not more likely than their male peers to report that MSL increases their commitment to working with disadvantaged students.

As with race, then, we find that the MSL learning outcomes do not necessarily work together in ways that teacher educators intend. Deepening female pre-service teachers' understanding of cultural diversity and their positive view of "other" students does not foster their commitment to working with such students in the future. MSL might thus lead female pre-service teachers to be more open to learning about diversity and inequality while simultaneously operating to maintain social distance between themselves and the students and communities they encounter through MSL. More work needs to be done to understand when and how gender becomes salient to pre-service teachers as they engage in MSL.

7. Implications

Unlike most other types of field experiences in teacher education, MSL intentionally seeks to raise pre-service teachers' awareness of social difference in order to foster pre-service teachers' commitment to working with marginalized students and communities. By illuminating the multidimensionality of MSL, our study helps to identify some components of an MSL pedagogy that can assist pre-service teachers and teacher educators in attaining these goals.

On the most basic level, our findings raise some questions about when the goals of MSL can and do work in tandem. Our study suggests that, while MSL can increase the awareness of negative stereotypes, cultural diversity, and social inequality for some pre-service teachers in some contexts, this does not necessarily increase pre-service teachers' commitment to teaching marginalized students in the future. Further, while MSL can facilitate pre-service teachers' increased commitment to working with some students it can also reinforce their social distance from others. Rather than viewing MSL as a monolithic experience, then, our study highlights the importance of the MSL context in shaping what pre-service teachers learn. Teacher educators cannot assume that pre-service teachers will learn the same things from all MSL contexts. Rather, teacher educators will need to mediate pre-service teachers' experiences in ways that attend to the specific histories, conditions, and needs of the specific social groups pre-service teachers encounter through MSL.

Our study also points to the importance of attending to the multiple social identities of both pre-service teachers and the K–12 students they work with through MSL. In this study, we examined the salience that race, social class, and gender held for pre-service teachers in relation to MSL goals. Studies of MSL in other national contexts highlight the salience of religious and ethnic differences for pre-service teachers' learning (Conle et al., 2000; Mitton-Kückner et al., 2010). These studies challenge teacher educators to design MSL in ways that attend to multiple types of social difference. They call upon teacher educators in the US, in particular, to expand their current focus on race and social class to recognize other types of difference, such as religion.

As nation's become increasingly culturally and racially diverse, it becomes increasingly important for teacher educators to acknowledge the multiple social identities of both pre-service teachers and the K–12 students they serve. Drawing on their work with ethnically diverse pre-service teachers in Canada, Conle et al. (2000) encourages teacher educators to recognize this cultural pluralism as an asset for pre-service teachers' learning. As Conle et al.'s work shows, encouraging pre-service teachers to reflect upon the multiplicity of their own social identities enables them to better understand the complex realities faced by the students they work with through MSL.

Existing studies of MSL in teacher education suggest that journaling and narrative inquiry can facilitate this type of reflection. Our study highlights the role of classroom discussions in this reflection, as well. Providing pre-service teachers with on-going opportunities to talk about their MSL experiences with their peers and their instructors in their university classrooms facilitates their learning about cultural diversity and social inequality and their commitment to working with disadvantaged students in the future. We are currently examining classroom observation data to identify what discussion strategies, in particular, foster substantive discussions of MSL. This research will provide further insight into how discussion mediates MSL outcomes as it helps contribute to the development of an effective MSL pedagogy.

Finally, our study indicates that building relationships between university-based teacher educators and MSL site personnel is a key element of an effective MSL pedagogy. Support from the latter significantly contributes to important MSL outcomes. Given the myriad demands that site personnel must meet, however, it is likely that they will have little time to understand university goals for MSL or how best to organize MSL in their sites. The more support that teacher educators can provide site personnel in developing this understanding the more likely it is that the goals of MSL will be met. The study thus ultimately points to the need for teacher educators to work across the university-school divide.

MSL is becoming a staple component of teacher education in many national contexts. Understanding its potential to promote pre-service teachers' understanding of social difference and

inequality and their commitment to working with historically under-served students and communities can help to ensure that MSL can be a critical piece in the puzzle of preparing a teaching force that is capable of and committed to teaching increasingly diverse students populations. A key to this understanding is acknowledging the multidimensionality of pre-service teachers' MSL experiences and learning outcomes.

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