

Connecting Service-Learning and School Climate:  
Implications for Citizenship Outcomes across Racial Groups in the United States

Gary Homana

University of Maryland

Email: [ghomana6@umd.edu](mailto:ghomana6@umd.edu)

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Abstract

This study examines the relationship between school climate and two components of service-learning and citizenship outcomes among middle grades students in the United States using items from the 1999 International Association for the Evaluation of Educational Achievement Civic Education Study. Based upon an assessment of school citizenship education climate (a collection of scales relating to school climate that revolves around a framework of seven key dimensions), this paper analyzes the relationship between service-learning and school climate predictors and students' civic knowledge, expected community participation, norms of social movement, norms of conventional participation, and understanding of democratic concepts. I utilize regression analysis to examine the effect of the predictors for citizenship outcomes and population groups, as well as potential interactions. By studying how school climate may differentially affect citizenship outcomes for students of different backgrounds more was learned about how to make schools a context for positive citizenship development among diverse groups of students in the United States.

Connecting Service-Learning and School Climate:

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Service-learning and positive school climate are crucial for the development of competent and capable citizens. Along with the creation of pathways for academic success, they both have the potential to assist in citizenship development. In this role, schools can help foster the knowledge, skills, and dispositions that young people need to develop into politically aware and socially responsible individuals (Torney-Purta & Vermeer, 2004).

Unfortunately, especially in the era of No Child Left Behind, creating high quality service-learning and a positive school climate for citizenship education has become more challenging. When students are given annual standardized tests on specified information there are limited opportunities for critical thinking around and active involvement with civic-related issues. Yet, opportunities for students to engage in meaningful citizenship learning, participate in open discussions about social and political issues, experience for themselves having voice in the school as a whole, and extend their learning beyond the school to address real community issues are critically important for the development of politically aware, actively informed, and civically engaged citizens.

Schools have many functions. They play an important role in the citizenship education of youth by facilitating students' understanding of how to engage in political and civic participation and how policies affect individual lives (Galston, 2001; Torney-Purta, 2002). They also serve as key institutions in the process of students' engagement in service-learning activities. In an analysis of civic service in four countries Torney-Purta,

Amadeo & Richardson (2007) found that schools indeed play an important role in the development of students' service to the community. Central to this current study, these researchers analysis showed that volunteering combined with study about community problems in school was associated with higher scores on measures of student citizenship attitudes and engagement including trust, efficacy, identity, prosocial attitudes, and tolerance in four countries.

Service-learning and the creation of positive school climate are important components that assist students in their development as competent, responsible, and capable citizens. Beyond these two components are effects on all students related to other issues critical to citizenship development. For example, when educational systems are characterized by school climates which marginalize groups of persons students within those systems become at an inherent disadvantage in terms of citizenship development.

Differences between students of different races have been found on a variety of educational and civic outcomes, including academic achievement (Gamoran, 2001; Lee, 2002) expected electoral participation (U.S. Bureau of the Census, 2002), and social and political attitudes (Torney-Purta, Barber & Wilkenfeld, 2006; Lopez, 2005). Existing disparities in knowledge and outcomes may be reflective of students' different races', socioeconomic status, and gender. They may also reflect students' experiences with and perception of their school's climate. Early research suggests, for example, that youth from minority backgrounds may not perceive their schools to be as open and supportive as other students, which would likely affect academic and civic outcomes (Laosa, 1989; Walsh, 1987). More recent research has found that citizenship outcomes and experiences among diverse groups of students are indeed a concern, especially regarding

opportunities for open discussion, civic knowledge and engagement, and classroom instruction (Torney-Purta, Barber & Wilkenfeld, 2007; Campbell, 2006; Torney-Purta, et al., 2006). At the same time, however, no study has examined the relationship of both service-learning and school climate predictors and citizenship outcomes among diverse population groups in the United States. From a research perspective, exploring this relationship provides a fruitful endeavor—understanding and improving how schools and researchers can enhance students’ academic, political, social, and civic responsibilities for all students.

#### Service-Learning and School Climate: What Role for Citizenship Outcomes?

Service-learning has been defined in multiple ways (Alliance for Service-Learning in Education Reform, 2005; National Commission on Service-Learning, 2000; National Service-Learning Clearinghouse, 2005; U.S Congress, 1993). For this paper, however, it is considered broadly, as a teaching methodology that integrates academic study with real community needs to enhance student learning, and civic and social responsibility. Beyond the typical components of student planning and action, reflection and evaluation, and recognition and celebration; high quality service-learning fosters students’ active involvement learning; develops a range of skills and abilities such as problem-solving and critical thinking skills, and engages teachers as facilitators throughout the process.

In addition, among researchers and theorists, the conceptualization of school climate is varied across the literature (Moos, 1979; Tagiuri, 1988; Deal & Peterson, 1999). Recent work on school climate (Homana, Barber, & Torney-Purta, 2006) has

conceptualized and measured the connection between school climate and citizenship education, expressing school climate as a socio-cultural view defined as “the impressions, beliefs, and expectations held by members of the school community about their school as a learning environment, their associated behavior, and the symbols and institutions that represent the patterned expressions of the behavior” (p. 2). This conceptualization of school climate and its relationship with service-learning will be discussed in-depth later in this paper.

There are also a number of commonalities between service-learning and school climate for realizing citizenship outcomes. Students’ perception of their school and classroom climate pertaining to supportive dialogue and collaboration is related to their knowledge, participation in political discussion in and out of school, support for democratic values, and future voting intentions (Torney, Oppenheim, & Farnen, 1975; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). Discussion of important issues in a supportive classroom is also associated with higher levels of political interest and trust (Hahn, 1998). And, combining student learning to solve community problems in school with volunteering out of school has been shown to lead to a host of citizenship attitudes and engagement (Torney-Purta, et al., 2007). Yet, not all schools incorporate these positive environments for learning.

Research reveals that many teachers in the United States typically utilize traditional teaching methods, rarely provide opportunities to experience democracy or connect content to social problems, and engage students in lower-level thinking rather than higher-order thinking (Kahne, Rodriguez, Smith, & Thiede, 2000). Approximately 90% of students reported that when teachers conducted lessons on civics topics the

instructional methods focused on reading textbooks and doing worksheets (Torney-Purta, 2002). This may be a particularly prevalent problem, for example, in urban schools with large ethnic and minority populations (Hahn, 1999).

Service-learning can increase students' opportunities to engage in such inquiry and higher-order thinking in the classroom. In a study comparing over 1,000 high school students, Billig, Root & Jesse (2005) found that while non-service-learning teachers used single active teaching strategies, such as debates, role plays, and student projects almost as often as service-learning teachers, "service-learning teachers were more likely to use a variety of active strategies more often than teachers that did not implement service-learning" (p.1). Furthermore, the use of these strategies was "highly related" (p. 54) to outcomes in civic knowledge, skills, dispositions, and civic engagement. As such, positive school climate for citizenship can be thought of as supporting, and being supported by, service-learning in developing student's civic and social responsibility.

#### Communities of Practice: Considerations for Citizenship Outcomes

Schools can contain a variety of learning communities to help foster citizenship outcomes among students. These communities fit naturally with both service-learning and school climate. Yet, much of the research on service-learning and school climate is atheoretical. Building on the theoretical construct of communities of practice (Lave and Wenger, 1991, 2002; Wenger, 1998) a more developed of the school communities allows new ways of experiencing life from the perspective of others can often foster the knowledge, skills, and dispositions necessary for civic and political participation. Torney-Purta, Homana, & Barber (2006) have conceptualized three distinct types of communities

within the school context to help foster citizenship learning and engagement—the *discourse community*, the *affective community*, and the *participatory community*. A brief overview of each of these communities can serve as a way to conceptualize how service-learning and school climate may work with each other to promote citizenship development of students.

The *discourse community* involves students as they do the cognitive work of engaging with other students and their teachers in recitation and discussion in the classroom. As such, it can serve as a bridge for democratic citizenship because it can help facilitate common understandings and opportunities for dialogue leading to support for social and political responsibility. The *affective community* is associated with developing the positive bonds necessary for students to enhance their relationships with others in school. This community of practice helps create a safe and cooperative environment where students can exchange perspectives, develop their ideas, learn to accept new ideas and hear criticism that challenges their thinking. The *participatory community* involves developing and practicing the skills and behaviors necessary for citizenship. In this community students join together to examine political, civic, and social issues around which they engage in decision-making and participate in meaningful change.

Because the focus of this study is to understand the relationship of service-learning and school climate on citizenship outcomes, itself a complicated undertaking, utilizing the communities of practice framework within this study might mask some of the relationships of most interest. It is important, however, to identify and consider the possibilities for these types of communities in schools and the role that they could play in future research. For this reason, communities of practice are offered as another way to

think about the implications of the findings of this study. These relationships are explored in the discussion section of this paper.

This study addresses an expanded conceptualization of school climate and civic learning and engagement based on key dimensions from the School Citizenship Education Climate Assessment (Homana, Barber & Torney-Purta, 2006) by extending the work completed by Homana and Barber (2006) which found that citizenship education and students' civic outcomes were significantly affected by dimensions of school climate. The purpose of the current study is to demonstrate the relationship of service-learning and school climate predictors and middle school students' citizenship outcomes while also exploring whether the relationship varies for students of diverse backgrounds. The findings of this paper contribute to understanding service-learning and school climate's role in citizenship education, including their combined and separate influence across different groups of students. To examine these relationships in the United States this study utilized a nationally representative sample of 14-year olds from the 1999 IEA Civic Education Study (Torney-Purta et al., 2001). I now turn to the key dimensions of a positive school climate (Homana, et al., 2006), their relationship to service-learning, and the connection of both to citizenship development among adolescents in the United States.

#### Theoretical Framework of School Climate for Citizenship Education

This theoretical framework was originally developed as part of a broader school climate for citizenship education assessment (Homana et al., 2006) for the National Center on Civic Learning and Engagement at the Education Commission of the States<sup>1</sup>.

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<sup>1</sup> The School Climate for Citizenship Education Assessment has recently undergone analysis by RMC Research Corporation which has shown that the assessment has high reliability within each of the scales.

The assessment is a collection of scales relating to school climate (with scales from the IEA Civic Education Study in a central position) that revolves around a framework of seven key dimensions identified through an extensive review of research and policy literature. The key dimensions relate to an education for responsible citizenship, serve to deepen understanding of the characteristics and their purpose, and establish a basis for the assessment items used in the current study. The framework was developed through a process that utilized a variety of school climate and culture literature. A central focus of the assessment was establishment of clear connections with service-learning so that schools across the country could improve their citizenship education programs and extend what was occurring within their school's to broader civic, political, and social issues of the community. As a result, these dimensions reflect key components of positive school climate for responsible citizenship education with service-learning serving a critical role.

*Dimension 1: Official Recognition and Community Acceptance of the Civic Purpose of Education*

A positive school climate for citizenship requires a substantial agreement among members of the school community on a philosophy of education committed to the goals and objectives of a common civic purpose. This common understanding provides a reflection of the collective will of the school community through strong instructional content and pedagogy that supports the development of citizenship learning and promotes understanding and commitment to political and civic engagement. As a result, positive school climate and high quality service-learning work together to create an environment

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across the school that fosters the well-being, academic achievement, and citizenship development of students. Underlying this relationship are an explicit school mission statement and supportive policies that promote conscious commitment to citizenship education for all students regardless of racial, ethnic, or gender differences. At the same time, policy impediments are identified and reduced so that citizenship education and service-learning are successfully sustained (Academy for Educational Development, 2004).

*Dimension 2: Meaningful Learning of Civic-Related Knowledge*

Classroom instruction that explicitly focuses on meaningful civic content is a critical element for students' citizenship and enhanced learning. Instructional methods and approaches that foster civic-related knowledge engage students in activities that promote a range of academic competencies. Using data from the United States sample of the IEA CivEd Study, Torney-Purta and Richardson (2003) concluded that meaningful civic knowledge builds upon students' past understanding that is made authentic by connections to current issues and concerns.

A positive classroom climate can be promoted through service-learning to enhance academic performance and cultivate development of the knowledge, skills, and dispositions necessary in a democratic society. When the service-learning experience is structured around political or civic engagement greater civic knowledge and dispositions were demonstrated by students (Billig et al., 2005). In addition, students who engage in high quality service-learning experiences have an increased belief that they can make a difference, a greater sense of service and civic responsibility, more sophisticated understandings of politics and morality,

a heightened understanding of how they can bring about social change, and a greater commitment to voting and involvement in community organizations later in life. (Melchior, 1999; Stephens, 1995; Yates & Youniss, 1998; Youniss, McLellan & Yates, 1997).

*Dimension 3: Cooperation and Collaboration in Approaching Civic-Related Learning*

In a positive school climate for citizenship, members of the school community engage in cooperative and collaborative experiences that enhance and support learning and problem-solving connected to citizenship development for all students. These cooperative activities engage diverse groups of students in meaningful learning tasks and problem-solving by requiring students to co-construct new knowledge while building upon the prior experiences that students bring to the group (Vosniadou, 2001). At the same time, collaborative experiences can create spaces for students and faculty to collaborate as a team, share in the decision-making process, and promote meaningful educational experiences that actively engage students in their learning. Finally, a truly collaborative environment also encourages cooperation among teachers, which creates an environment of support and the creation of common goals and increased efficacy for improving students' cognitive and social development (Freiberg, 1999). Research also indicates that high quality service-learning promotes a greater sense of school community among students and teachers, and improves teacher connectiveness (Billig & Conrad, 1997). As such, these schools can create powerful learning environments that promote cooperative learning, group cohesion, respect, and mutual trust (Finnan, Schnepel & Anderson, 2003; Ghaith, 2003; Ireland, Kerr, Lopes, Nelson & Cleaver, 2006; Kerr,

Ireland, Lopes & Cleaver, 2004)—all elements important for the development of school belonging.

*Dimension 4: Mutual Trust and Positive Interactions*

Positive school climate for citizenship fosters a supportive environment that merits mutual trust and positive interactions among all its members. Group openness, collaboration, cooperation, and supportive atmosphere are consistent with the school's mission and goals. While quality collaboration and cooperation have positive influences on a school's citizenship education climate on their own, these qualities are further enhanced when they occur in environments where members of the school community are respectful and trusting of one another. Cohen's (2001) work in the field of social and emotional education suggests that improved classroom and school climate can create "an environment where learning optimally takes place." Indeed, the Search Institute (2000) identifies a caring school community as one of several external developmental assets, or characteristics of a student's environment, that encourage positive development both academically and socially. Supporting these contentions, Ireland and colleagues (2006) found in England that a strong sense of school community positively impacted students' trusting and knowing people in their local communities.

Learner-centered environments such as those created through service-learning allow teachers and students to participate in shared partnerships and provide a basis for mutual understandings. These mutual understandings help create a "bridge to civility" engaging youth in experiences that contribute to the well-being of others, develops social consciousness, responsibility, awareness of the social and political world (Berman, 1998),

including cultural awareness and positive interactions among different cultural groups of students. Positive school climate for citizenship is also linked with service-learning because it increases awareness and acceptance of cultural differences, and develops the ability to communicate more comfortably with culturally and ethnically diverse members of society (Loesch-Griffin, Petrides & Pratt, 1995; Melchior, 1999; Shaffer, 1993).

*Dimension 5: Students' Input and Participatory Problem-Solving Skills are Valued*

McLaughlin (2004) suggests that organizations such as schools should provide opportunities for youth to engage as active learners in ways that lead to confidence in the value of participatory problem-solving. Positive school climates foster environments in which members of the school community respect, value, and promote students' abilities to shape their own learning and participate in solving school and community problems. In these schools, students feel a sense of freedom to express their ideas and respect the ideas of others, both in the classroom and through school-wide activities that bring students together to address issues related to school life. Members of schools with a positive climate ask students for their input regarding a range of issues including school policies, and this input is taken into account by teachers and administrators.

Engaging schools in vision-building activities through service-learning connects groups of students to best practices and the design and evaluation of programs that acknowledge the value and the contributions of students. Through these experiences, students become active participants in the democratic process and meaningfully contribute to school life.

*Dimension 6: Thoughtful and Respectful Dialogue about Issues*

The development of citizenship outcomes through thoughtful and respectful deliberation and dialogue is supported by policies and practices that are student-centered, recognize and encourage civic-related professional development, and create genuine opportunities for collaboration, cooperation, and communication across the school. Torney-Purta (2002) found that civic knowledge, skills, and dispositions are fruitful in a rich classroom climate based on mutual engagement. In such an environment, trying out one's knowledge in interpersonal situations makes the learning experience more meaningful through discussions with others. Schools with positive climate support opportunities for deliberation and dialogue that cultivate the ability to listen to others' views, acknowledge those views, and build on them when expressing one's own ideas. In these schools, teachers encourage students to discuss political or social issues about which people have different opinions. They ensure that there is enough time to talk about a topic and create a safe and welcoming environment where many students are comfortable expressing their opinions on social and controversial issues (Clever, Ireland, Kerr & Lopes, 2004; Hess, 2004). High quality service-learning embraces these types of practice so that students can receive the support they need to express their opinions on social and controversial issues. In this way, students can develop the ability to critique, analyze, and formulate possibilities for action critical for responsive citizenship (Westheimer & Kahne, 2003).

At the same time, racial and ethnic issues, the lack of recognition of rights, exposure of identities, uses of authority and other forms of social control, and structural and cultural impositions may impede the openness of the discourse process (Gifford,

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Watt, Clark, & Koster, 2005; Conover, Searing, & Crewe, 2002; Hahn, 1999; Levinson & Brantmeier, in press). Such impediments can affect the experiences in open classroom discussions for different groups of students.

### *Dimension 7: Engagement and Interaction in Service to the Community*

Citizenship development has an important relationship to active participation within the broader community. Beginning through involvement in student councils and other types of in-school civic participation, citizenship education continues by building relationships between the school and the community. Democratic concepts such as inequality, injustice, and an obligation to the broader community are elements that link real issues, from the local to the international level, to co-curricular activities in the school.

Service-learning and a positive school climate also promote a shared commitment to policies that encourage more and deeper collaborative interaction between the school and the community. Ongoing involvement in active student participation activities linked to the community can help students learn to work together to identify community problems, create solutions through mutual understandings and consensus on how to address those problems, and reflect on the process through diverse points of view.

In addition, beginning through in-school engagement, service-learning serves as a critical methodology to extend the understanding and application of citizenship development into the community. Democratic understandings can be successfully linked to practice through real issues creating opportunities for students to become active and contributing members in their communities leading to increased political and civic

engagement (Homana & Barber, 2006; Homana & Greene, 2006; Ireland et al., 2006; Cleaver et al., 2004; Morgan & Streb, 1999). Beneficial to the community, students, and schools, these experiences provide opportunities for achievement and recognition, participation in meaningful peer interactions, and help students work toward collective goals with each other and adult members, all consistent with the goals of citizenship education.

### *Summary*

This study analyzes how service-learning and school climate influence citizenship outcomes of middle grade students in the United States. Specifically, I examine how service-learning and school climate predictors, as measured by a survey of students as part of the IEA CivEd Study, predict students' civic knowledge, expected community participation, norms of social movement participation, norms of conventional participation, and conceptions of what is good for democracy across diverse groups of students. Through use of regression analysis I provide insight into how service-learning and school climate may differentially affect civic outcomes for 14-year-old students of different race, gender, and socioeconomic backgrounds. This analysis builds on a growing foundation of literature about how to make schools a context for positive civic development for all youth in the United States.

## Method

### *Data Sources*

Data for this analysis come from students surveyed as part of the IEA Civic Education Study of 14-year-olds in the United States. In 1994, the International Association for the Evaluation of Educational Achievement began planning a study of civic education. A case study phase from 1994 to 1998 used qualitative data to craft an instrument to measure political knowledge, attitudes, and civic engagement of approximately 90,000 14 year olds in 28 countries (see Torney-Purta et al., 1999, 2001). The focus of this current study is on items from the CivEd Study used as part of the School Citizenship Education Climate Assessment as they predict civic knowledge, skills, and dispositions.

*Sampling and Variables Chosen for this Analysis*

Nationally representative samples of students in the United States were selected as data sources for the current investigation. A total of 2,811 students in 124 schools from the United States participated in the study. Because I am interested in examining service-learning and climate predictors for citizenship outcomes and racial groupings as they predict each of the five citizenship-related outcomes of interest, this analysis utilizes a moderator-variable style regression analysis. This analysis also examines the interactions between service-learning and school climate and the racial groupings to see if and how the predictors and citizenship outcomes are related differently in the different population groups.

In addition to items and scales available in the original CivEd data set, this analysis incorporated various IRT scales developed by the Civic Education Data and Researcher Services (CEDARS) at the University of Maryland (see Husfeldt, Barber, &

Torney-Purta, 2005). The dependent variables for the analysis reflect those from Homana and Barber's (2006) original study and include total civic knowledge, concepts of democracy, norms of conventional participation, norms of social movement participation, and expected community participation. Similarly, the independent variables relate to the seven dimensions of school citizenship education and, in the majority of cases, actually were included as scales and items in the School Citizenship Education Climate Assessment, developed in 2006 for National Center for Learning and Citizenship (NCLC) at the Education Commission of the States (ECS) (see Appendix). Given my particular interest in service-learning also included are two separate rating scale items from the IEA CivEd Study: 1) participation in a group conducting [voluntary] activities to help the community; and 2) contribute to solving problems in the community through school.

In addition, a series of items tailored specifically toward studying civic education in the United States (see Baldi, Perie, Skidmore, Greenberg, & Hahn, 1998) regarding students' racial background allows for comparisons to be made between groups of students. Six groups of students were identified for this study: White non/Hispanic, Black non/Hispanic, Hispanic/Latino, Asian/Pacific Islander, Native American Indian, and Multiracial. As mentioned, controls for home resources and gender are also considered in the analysis.

#### *Data Adequacy*

It was important to choose data that included sufficient numbers of both students and schools; otherwise, the analysis might suffer due to issues pertaining to small sub-samples. To prevent such issues, missing data were imputed for predictors at the student-level (using the mean for continuous variables, and the median of similar cases for

dichotomous variables). Table 1 provides descriptive statistics for predictor and outcome variables for the entire sample, including the imputed missing data.

## Results

Prior to the regression analysis two separate Analyses of Variance (ANOVAs) were conducted to explore two different questions. The first analysis explored the question, “What is the relationship between race and the service-learning and school climate predictors?” The second analysis explored the question, “What is the relationship between student race and civic outcomes?”

After the ANOVAs several follow-up regression analyses were conducted using the service-learning and climate predictors along with race, gender, and SES in association with civic outcomes. This allowed investigation of independent effects of the variables, as well as possible interactions between school climate and service-learning and the other variables. The purpose of this investigation was to understand the question, “How does the relationship between service-learning and school climate and civic outcomes differ among students of different backgrounds?”

### *Service-Learning and School Climate by Student Race*

Across all racial groups statistically significant differences ( $p < .01$ ) were found on three of the eight service-learning and school climate measures: participating in a group volunteer activity; perception of open classroom climate; and confidence in the value of school participation (see Table 2). Post-hoc analyses were conducted to determine exactly where significant differences existed between the means of the

different racial groups on the service-learning and school climate measures. The bottom of Table 2 provides specific differences between the groups on those measures.

The post-hoc tests reveal that Latino students participate in far fewer volunteer activities, perceive relatively few experiences with positive school climate, and have less confidence in the value of school participation. Latino students also participate in less volunteer activities than Black and White students, have significantly less confidence in school participation than Asian students, and perceive a less open classroom climate for discussion than White students. At the same time, while White students report some of the most involved experiences with volunteer activities and discussion they less often agree that they have confidence in the value of school participation when compared to Asian students. Finally, Multiracial students also feel less confident in the value of their participation when compared to White students.

Overall, the racial differences in climate perceptions are small, as indicated by the proportion of variability explained by racial categories. This suggests that race needs to be considered in combination with other characteristics of students in providing a fuller picture of students' experiences in school.

#### *Citizenship Outcomes by Student Race*

Analysis was also conducted examining civic outcomes by student race (see Table 3). Results indicate that statistically significant differences exist on two civic outcomes—civic knowledge and understanding democratic concepts. Note, however, the largest difference among the groups occurs in total civic knowledge. For this outcome, statistically significant differences exist between most of the racial groups. Specifically,

Asian, White, and Multiracial students have higher scores on civic knowledge than Latino or Black students while White students have higher scores on total civic knowledge than all other groups of students. The largest differences are between White students and Black and Latino students. Black students appear to have the lowest total civic knowledge, scoring almost one standard deviation below White students and more than one-half of a standard deviation below Asian and Multiracial students.

The difference among all of the groups' understanding concepts of democracy is less pronounced than those found in the analysis of total civic knowledge—however, statistically significant differences were found. Again, the analysis suggests that Asian, Multiracial and White students have stronger understanding of democratic concepts than do Latino or Black students.

Although the effects of racial identification on civic outcomes are small, overall they are somewhat larger than their effects on school climate. The effect on knowledge is especially notable, with these racial categories explaining 10% of the variance in civic knowledge.

### *Multiple Regression Analysis*

The regression analysis, which focused on further understanding the significant racial differences found in citizenship outcomes, revealed several statistically significant relationships that provide insight regarding the current research question. The analysis also provided information relevant to important interactions for the relationship of specific service-learning and school climate measures and citizenship outcomes for certain racial groups. In addition, gender and socioeconomic status findings support the

body of research already conducted using the CivEd Study. Results for the all citizenship outcomes found to have statistically significant relationships with the service-learning and school climate measures are presented in Table 4. These citizenship outcomes include total civic knowledge, understanding concepts of democracy, norms of conventional participation, norms of social movement, and expected community participation.

One of the major purposes of this analysis is to explore whether significant interactions between race and school climate for service-learning exist as they influence citizenship outcomes. Interactions, however, can be difficult to find. Therefore, a more flexible p-value of 0.05 is employed when exploring interaction terms. This flexibility allowed me to explore and report interactions beyond the established significance level of 0.01 to provide a more rounded perspective of the potential of the relationships.

*Total Civic Knowledge.* Even after controlling for gender and books in the home, both race and the indicators for service-learning and school climate have significant relations to total civic knowledge. Two service-learning measures—participation in group voluntary service and learning in school to help solve problems in the community—appear associated with students' total civic knowledge. However, participation in the voluntary activity is positively associated with civic knowledge, while learning in school about how to solve problems in the community is negatively associated with students' civic knowledge scores. Regarding school climate, three climate activities—engagement in media activities, open classroom climate for discussion, and confidence in participation in school—appear positively associated with students' civic knowledge. In addition, total civic knowledge among Black and Latino students is significantly lower

than White students. In other words, the two service-learning predictors and school climate measures do not explain away racial gaps seen when examining civic knowledge. In fact, the inclusion of the predictors results in a significant gap in knowledge between White and Black students. A significant gap also exists between White and Native American students; however, the interpretation of this finding is limited by the small sample of Native Americans.

The relationship between learning in school to help solve community problems and total civic knowledge does appear to be different for Latino students than it is for other racial groups. A significant interaction ( $p = .025$ ) reveals learning to help solve community problems is a positive predictor of total civic knowledge for Latino students (while it was a negative predictor for the sample as a whole). This is illustrated graphically in Figure 1. In particular, Latino students who do not learn in school to solve community problems have lower total civic knowledge than White students. At the same time, Latino students who learn in their schools how to solve community problems score higher on total civic knowledge than White students with similar experiences.

*Understanding Concepts of Democracy.* Overall, students who engage in more volunteer activities, participate in more media related activities, perceive a more open classroom climate for discussion, or who have more confidence in the value of school participation have more normative conceptions of democracy. Even after taking into account these significant effects of service-learning and school climate, however, differences among racial groups in conceptions of democracy still persist. In particular, this analysis demonstrates that Black and Latino students still have less normative concepts of democracy than do White students.

Unlike the analysis of civic knowledge, there are no significant interactions of race, the two service-learning predictors and climate as they influence concepts of democracy. In other words, the effects of service-learning and school climate on conceptions of democracy are similar across racial groups.

*Norms of Conventional Participation.* Students who participate in volunteer activities, learn to solve community problems through their schools, engage in media related activities, write long answers to civic and political questions, perceive an open classroom climate for discussion, or who have more confidence in the value of school participation have a greater understanding of the importance of conventional civic and political participation such as voting in every election, joining a political party, or knowing about the country's history. Native American students are the only group of students who demonstrate a significantly greater understanding of conventional participation than White students, although the sample is small. Similar to understanding concepts of democracy, no significant interactions were found.

*Norms of Social Movement Participation.* The regression analysis revealed that both service-learning measures—participation in volunteer activities and learning in school to solve community problems—are significant predictors of students' development of norms of social movement participation. Similarly, two school climate predictors, open classroom climate for discussion, and confidence in the value of school participation are significantly influential on this citizenship outcome. Interestingly, both Black students and Multiracial students are significantly more likely to have high norms of social movement participation than White students.

The relationship of participation in traditional learning activities and social movement participation appears to be different for Multiracial students compared to other groups ( $p = .01$ ). A significant interaction reveals some benefit for most groups of students regarding traditional learning activities and social movement participation. Yet, looking specifically at Multiracial students (see Figure 2) this relationship is negative. In other words, White and Multiracial students with low or average participation in traditional learning activities have similar levels of social movement participation. However, as Multiracial students participate more frequently in traditional learning activities they appear to have lower levels of social movement participation compared to White students with similar levels of participation in traditional learning activities.

*Expected Adult Community Participation.* The relationship of race and the indicators for service-learning and school climate is significant to expected community participation for Asian students, Black students, Latino students, and Multiracial students. As in the previous analyses, participation in group volunteer activities, learning to solve community problems, perception of open classroom climate for discussion, confidence in the value of school participation, and writing long answers to questions are important predictors of students' expected community participation. In addition, an additional climate predictor, participation in interactive activities is positively associated with expected community participation. These significant relationships point to the potential positive impact of service-learning and school climate as ways of explaining differences for these groups of students when examining expected community participation.

A number of significant interactions have been found related to this part of the analysis. First, White and Latino students who less often learn in school to solve community problems have similar levels of expected community participation as adults. Yet, when Latino students learn more often in school to solve community problems they appear to have statistically significant higher levels of expected community participation than White students with similar high levels of experience or participation ( $p = .02$ ). These differences are illustrated by comparing Latino and White students in Figures 3.

Second, Black and White students who less often write longer answers to civic and political questions in class have about the same levels of expected community participation. However, Black students who more often write longer answers to civic or political questions have statistically significant higher levels of expected community participation than White students who more often write longer answers to these types of questions ( $p = .04$ ). Figure 4 provides an illustration comparing the difference between Black and White students.

Third, Asian and White students who have low or average levels of confidence in the value of school participation have similar levels of expected community participation. However, when Asian students' have above average confidence in the value of school participation they have statistically significant higher levels of expected community participation than White students with similar levels of discussion or confidence in the value of school participation ( $p = .01$  and  $p = .00$ ), respectively). Please see Figure 5 for illustration of difference between Asian and White students.

At the same time, however, the analysis revealed a negative finding for the relationship of the value of confidence in school participation and expected adult

community participation for Multiracial students ( $p = .04$ ). White or Multiracial students with low or average confidence in the value of school participation have similar levels of expected community participation. However, White students with above-average confidence in school participation in school appear to have higher levels of expected community participation than Multiracial students with similar high levels of confidence (see Figure 6).

#### *Gender and Socioeconomic Status*

The regression analysis suggests that gender and socioeconomic status are significantly associated with the development of citizenship outcomes among students. Socioeconomic status, for example (measured by the variable “books in the home”) appears to influence the more traditional aspects of citizenship—civic knowledge, concepts of democracy, and norms for conventional participation. These findings are consistent with previous research using the CivEd data to examine citizenship outcomes among adolescents. At the same time, there is a small but statistically significant negative relationship between socioeconomic status and norms of social movement.

Gender appears to make a statistically significant difference on two citizenship outcomes—norms of social movement and expected community participation. In both outcomes, females are more likely to participate than males. This is also consistent with previous CivEd research. In general, therefore, no surprises have been found regarding either socioeconomic status or gender in this study.

## Discussion

This analysis has resulted in several key findings important for understanding the role of service-learning and school climate for citizenship outcomes in the United States. Results from the analysis reveal that different racial groups of students do indeed perceive their experiences with service-learning and school climate differently, race and ethnicity play a role in civic outcomes, and both service-learning and school climate for citizenship have distinct advantages and disadvantages for students of different backgrounds.

There are fairly consistent gaps in some citizenship outcomes found to exist due to race. The ANOVA findings reveal patterns regarding the relationship of predictors and outcomes that are consistent with the literature most recently explored by Campbell (2006) and Torney-Purta et al., (2006). The current ANOVA analyses reports that Asian and White students consistently have either more volunteer experiences to benefit the community, more positive perceptions or positive interactions within various dimensions of school climate, or higher levels of confidence in the value of school participation than do the other groups of students, especially Black and Latino students.

The regression analysis suggests that both measures of service-learning— participation in a group volunteer activity to benefit the community and learning in school to help solve community problems school are key predictors for many of the citizenship outcomes. These findings supports the research by Torney-Purta et al., (2007) of the CivEd data regarding the importance of combining learning in school with actual service in the community. Among the school climate variables, two predictors appear consistently influential for citizenship across most groups—open classroom climate for discussion and the value of confidence for school participation.

At the same time, the regression analysis reveals that the relationship between the service-learning and school climate predictors and citizenship outcomes among the diverse groups becomes more mixed, depending on the outcome. For example, White students score higher on total civic knowledge and have stronger concepts of democracy, than other groups of students. However, Black and Multiracial students display significantly stronger norms for social movement participation than White students. And, Asian, Black students, Latino students, and Multicultural students have expectations of more community participation than White students (holding other factors constant).

In general, this seems to suggest that White students appear to benefit from service-learning and school climate in terms of more “academic” citizenship development, specifically total civic knowledge and concepts of democracy. At the same time, Black and Latino students appear to benefit from service-learning and school climate for advantages related to “hands-on” citizenship outcomes such as community and social movement participation. This may not be too surprising given the historical disenfranchisement of these two population groups from the political, economic, and educational institutions resulting in establishment of grass-roots and civil rights movements for social change. Another speculation may involve greater orientation of certain groups toward collectivism rather than individualism (see Smith, Bond and Kagitcibasi, 2006). Asian and Multiracial students appear to bridge both types of citizenship outcomes albeit with stronger involvement in social movement and community participation. These findings are reinforced by the significant interactions of the service-learning and school climate predictors and citizenship outcomes with race.

The findings found through the regression analysis suggest that service-learning and school climate have distinct and important roles to play for the development of citizenship outcomes among many of the diverse groups of students. More specifically, participating in volunteer activities, learning in school to solve community problems, engaging in discussions to examine and address issues, and valuing school participation can serve as critical components to develop citizenship outcomes among students, especially Black and Latino students.

### Conclusion

The findings of this study reinforce the fact that schools are essential in positive youth development for responsible citizenship. Although not the sole influence in a student's life, schools serve a critical role in supporting relationships that promote trust and mutual respect among its diverse members, encouraging a positive sense of school belonging, and supporting meaningful learning as a basis for active participation in a democratic society. While the study suggests that other student characteristics are important to consider, it also suggests that schools should increase and improve service-learning opportunities while promoting positive school climate for improved citizenship outcomes. For service-learning, it is critical that schools look to ways that foster, or continue to foster, high quality connections between what is learned in school and students' participation in volunteer activities that benefit the community—a process supported by service-learning advocates. Equally important is the schools' mission to strengthen positive school climate dimensions such as open classroom discussion, learning about the value of confidence in school participation, and new ways to engage

students in active learning for improved citizenship outcomes. As this study has shown, service-learning and school climate are not separate entities but rather complementary components that can strengthen and improve the citizenship outcomes of all students. It is incumbent upon schools, and the members in them, to assess and improve their policies and practice in order to create and sustain high quality service-learning and positive school climate so that all students, regardless of race, are afforded the opportunities to participate and interact in meaningful learning that supports their involvement in and attitudes towards citizenship.

As this analysis also indicates, racial gaps exist that can not be completely explained away by the service-learning or school climate measures. While the picture regarding the academic aspects of citizenship outcome is particularly disconcerting for Black and Latino students, in terms civic outcomes the analysis suggests that closer examination of ways to link “practical” citizenship outcomes with the “academic” citizenship outcomes across all groups is a worthy of goal of research, policy and practice. For example, further analysis specifically including other indicators that may reflect the reason for these gaps—such as power, authority, and social control may be ways to examine additional impacts on citizenship learning and engagement. At the same time, more thorough examination of the service-learning and school climate measures and their effect on what is occurring among the different racial groups that leads to certain outcomes in citizenship learning are also fruitful enterprises for future research. If open classroom climate for discussion, for example, is used to encourage students to explore their views, and the views of others on social and political issues, what is occurring during this learning process between diverse groups of students? How do

students participate in discussion when their race is in the majority in comparison to when their race is in the minority? How does the learning environment encourage and support all points of views beyond issues of power and control? And, how can civic knowledge and concepts of democracy be improved for all groups of students?

Service-learning and school climate for citizenship development are also ripe opportunities for exploring their connections with the three distinct types of communities of practice—the *discourse community*, the *affective community*, and the *participatory community*. For example, because identity and learning are intertwined, the *discourse community* can provide opportunities that enable students' new ways to understand themselves and their connection to others, thus leading to greater confidence and an increased sense of positive school belonging. Service-learning and school climate can help foster the discourse community because they allow for the practice of skills and development of behaviors among students from diverse backgrounds creating opportunities for students to become connected to one another and to their school.

In another example, through the *participatory community*, service-learning and school climate can become components for students' engagement with community issues because they provide opportunities for students learn to work together identifying community problems, creating solutions through mutual understandings, and developing consensus among diverse views on how to address problems in their school and broader community.

In conclusion, the findings of this study are important for at least three reasons. First, they illustrate the powerful connection of service-learning and school climate within the overarching school structure to identify and examine not only citizenship

outcomes, but to build a broader sense of school belonging among all students through the establishment of democratic values. Second, developing more nuanced understandings of these relationships and their effects on various racial groups may provide new insights into the possibilities for improved citizenship learning and engagement, teaching strategies that promote citizenship outcomes, and the policies that support their successful implementation so that all students become politically and socially responsible citizens. Third, it is my hope that future work will build off of these findings to continue to understand, create, and support a positive school environment that emphasizes collaboration, trust, and respect for all students based on positive shared values, relationships, and activities leading to improved citizenship learning and engagement.

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## APPENDIX: Description of Variables

<b>Student-level Dependent Variables</b>	
<i>Total Civic Knowledge</i>	Measures both civic knowledge and civic skills. IRT score, (Torney-Purta et al., 2001). Internationally Scaled with Mean = 100, SD = 20.
<i>Concepts of Democracy</i>	Measures what is good (or bad) for democracy. IRT score, (Husfeldt et al., 2005). Internationally Scaled with Mean = 10, SD = 2.
<i>Expected Community Participation</i>	Measures expectations of adult community citizenship. IRT score, (Husfeldt et al., 2005). Internationally Scaled with Mean = 10, SD = 2.
<i>Norms of Conventional Participation</i>	Measures formal aspects of political and civic engagement IRT score, (Torney-Purta et al., 2001). Internationally Scaled with Mean = 10, SD = 2.
<i>Norms of Social Movement Citizenship</i>	Measures unconventional aspects of political and civic engagement. IRT score, (Torney-Purta et al., 2001). Internationally Scaled with Mean = 10, SD = 2.
<b>Student-level Predictors</b>	
<i>Service-Learning Predictors</i>	
<i>BSGAS08, single-item</i>	- Have you participated in a group conducting [voluntary] activities to help the community (Torney-Purta et al., 2001)
<i>BSAK3, single-item</i>	- In school I have learned to contribute to solving problems in the community [society] (Torney-Purta et al., 2001)
<i>School Climate Predictors</i>	
<i>Interactive Class Activities, composite scale</i>	- Role-plays, mock trials, visits to elected officials, debates and/or discussion of text. (Homana et al., 2005). $\alpha = .72$ .
<i>Traditional Class Activities, composite scale</i>	- Reading text, writing reports, filling out worksheets. (Homana et al., 2005). $\alpha = .58$
<i>Media Activities, composite scale</i>	- Watching tv/videos, discussions of tv/video. (Homana et al., 2005). Two-item scale: split-half reliability = .76
<i>Write Long Answers to Question, single-item</i>	- Writes long answers to political, social, and civic questions (see Torney-Purta, et al., 2001)
<i>Conf. in Participation at School</i>	- Electing student representatives to suggest changes in how the school is run makes schools better - Lots of positive changes happen in this school when students work together - Organizing groups of students to state their opinions could help solve problems in this school - Students acting together can have more influence on what happens in this school than students acting alone IRT score (see Torney-Purta et al., 2001).
<i>Open Classroom Climate for Discussion</i>	- Students feel free to disagree openly with their teachers about political and social issues during class - Students are encouraged to make up their own minds about issues - Teachers respect our opinions and encourage us to express them during class - Students feel free to express opinions in class even when their opinions are different from most of the other students - Teachers encourage us to discuss political or social issues about which people have different opinions - Teachers present several sides of issue when explaining it in class IRT score (see Torney-Purta et al., 2001).

Table 1. Descriptive Statistics

Variable	N	Mean	SD
<b>Dependent Variables</b>			
Total Civic Knowledge	2786	105.01	22.18
Conception of Democracy	2737	10.08	2.04
Community Participation	2500	10.19	2.04
Conventional Participation	2475	10.45	1.97
Social Movement Participation	2734	10.26	2.32
<b>Independent Variables (Student)</b>			
Volunteer in Group to Help the Community	2585	1.50	0.50
Contribute to Solve Problems in the Community	2416	2.85	0.77
Interactive Activities	2811	0.35	0.48
Traditional Activities	2811	0.64	0.48
Media Activities	2811	0.73	0.45
Write Long Answers	2811	0.35	0.48
Perception of Open Classroom Climate for Discussion	2811	10.44	2.15
Confidence in Value of School Participation	2811	10.05	2.06

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Table 2. ANOVA results of service-learning and school climate by student race

	N	Group Volunteer Activities <sup>1</sup>	Solve Community Problems	Interactive Activities	Traditional Activities	Media Activities	Write Long Answers	Open Climate <sup>2</sup>	Confidence in Schl. Part. <sup>3</sup>
<b>Race</b>									
Asian	157	1.46	3.01	0.38	0.61	0.80	0.46	10.54	10.59
Black	429	1.52	2.93	0.32	0.58	0.73	0.38	10.25	9.92
Nat. Am.	23	1.35	2.97	0.48	0.65	0.82	0.38	10.34	10.14
Latino	430	1.38	2.80	0.32	0.64	0.69	0.31	10.21	9.81
Multi	126	1.53	2.77	0.37	0.63	0.74	0.34	10.36	9.47
White	1597	1.52	2.85	0.37	0.66	0.73	0.36	10.64	10.18
Total	2762								
F stat		5.21**	2.21	1.58	1.71	1.70	2.25	3.84**	6.59**
Df		5, 2552	5, 2373	5, 2756	5, 2756	5, 2756	5, 2756	5, 2756	5, 2756
Eff. Size <sup>a</sup>		0.008	0.003	0.001	0.001	0.001	0.002	0.005	0.010

<sup>1</sup> Black and White students participate in significantly more group voluntary activities than Latino students

<sup>2</sup> White students experience significantly more open classroom climate for discussion than Latino or Black students

<sup>3</sup> Asian students have significantly more confidence in school participation than Latino and Multiracial students; and White students have significantly more confidence in school participation than Multiracial students

<sup>a</sup> Adjusted R<sup>2</sup>

\*\*p<.01

Table 3. ANOVA results of civic outcomes by student race

		Total Civic Knowledge <sup>1</sup>	Concepts of Democracy <sup>2</sup>	Norms of Conventional Participation	Norms of Social Movement Participation	Expected Community Participation
<b>Race</b>	N					
Asian	157	105.39	10.30	10.08	10.08	10.55
Black	429	92.88	9.53	10.57	10.41	10.41
Native Am.	23	94.12	10.06	10.43	10.81	11.73
Latino	430	97.08	9.55	10.22	10.11	10.28
Multiracial	126	105.83	10.37	10.59	10.47	10.65
White	1597	111.71	10.43	10.21	10.13	10.48
Total	2762					
F stat		64.98**	19.91**	2.16	2.47	2.09
Df		5, 2743	5, 2686	5, 2684	5, 2455	5, 2432
Effect size <sup>a</sup>		0.104	0.034	0.002	0.003	0.002

<sup>1</sup> Asian, Multiracial, and White students have significantly more total civic knowledge than Black or Latino students; and White students have significantly more total civic knowledge than Native American students

<sup>2</sup> Asian, Multiracial, and White students have significantly stronger concepts of democracy than Black or Latino students

<sup>a</sup> Adjusted R<sup>2</sup>

\*\*p<.01

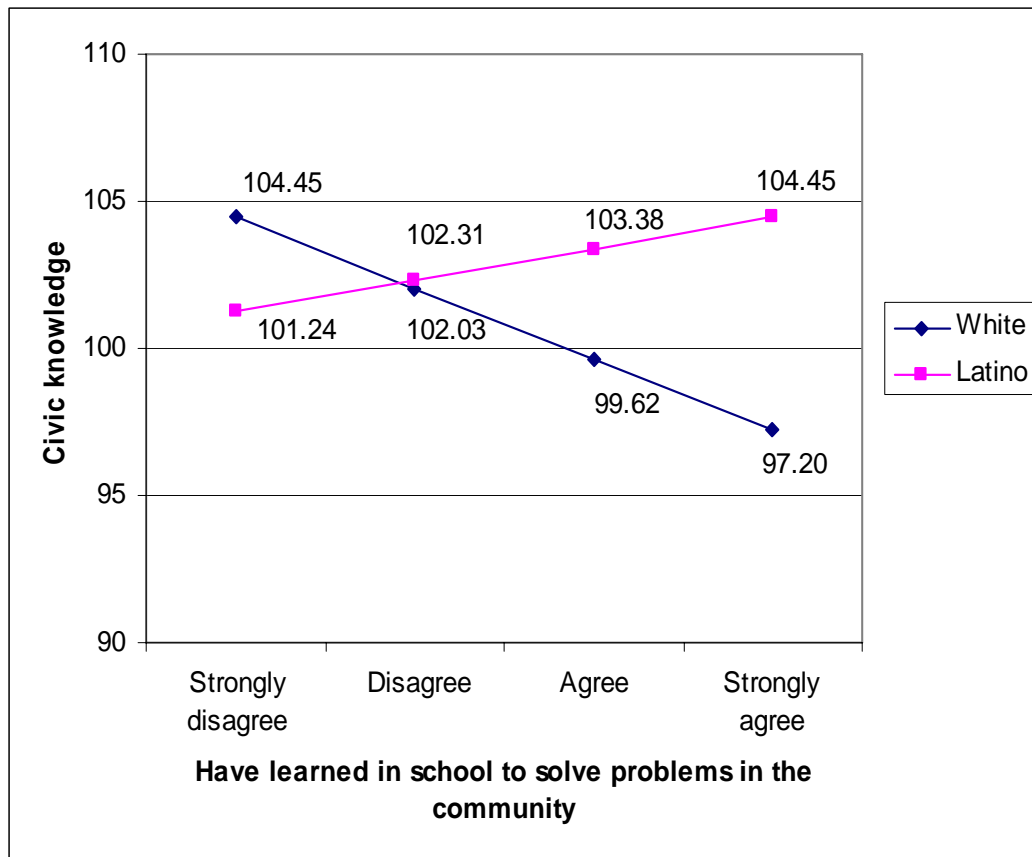
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Table 4. Regression of civic outcomes

	Total Civic Knowledge		Concepts of Democracy		Norms of Conventional Participation		Norms of Social Movt. Participation		Expected Community Participation	
	B	s.e.	b	s.e.	b	s.e.	B	s.e.	B	s.e.
Constant	76.58	3.04	6.13	0.28	6.73	0.27	4.95	0.31	5.00	0.27
Books in home	3.85**	0.34	0.23**	0.03	0.10**	0.03	-0.09**	0.04	0.02	0.03
Gender	-0.360	0.63	0.04	0.06	0.03	0.06	0.22**	0.07	0.37**	0.06
<b>Service-Learning and Climate</b>										
Group Voluntary Activity	4.29**	0.89	0.27**	0.09	0.38**	0.08	0.42**	0.09	0.85**	0.08
Solve Community Problems	-3.12**	0.67	-0.10	0.06	0.48**	0.06	0.47**	0.07	0.43**	0.06
Interactive Activities	-1.55	0.91	-0.19	0.09	0.42**	0.08	-0.06	0.10	0.20*	0.08
Media Activities	3.76**	1.02	0.15*	0.10	0.06	0.09	0.18	0.12	-0.01	0.09
Traditional Activities	1.07	0.95	0.09	0.09	-0.08	0.09	0.30**	0.10	0.05	0.09
Write Long Answers	-0.38	0.89	-0.02	0.09	0.21**	0.08	-0.01	0.09	0.23**	0.08
Classroom Climate	1.11**	0.21	0.13**	0.02	0.05**	0.02	0.08**	0.02	0.09**	0.02
Conf. in Participation	0.95**	0.22	0.18**	0.02	0.07**	0.02	0.22**	0.02	0.12**	0.02
<b>Race (white is ref. group)</b>										
Asian	-2.16	1.81	0.00	0.17	0.03	0.17	-0.32	0.19	0.32**	0.17
Black	-13.93**	1.45	-0.64**	0.14	-0.04	0.14	0.50**	0.15	0.29*	0.13
Native American	-13.75**	5.22	0.20	0.50	1.02*	0.51	0.50	0.55	0.58	0.51
Latino	-18.59**	4.87	-0.52**	0.13	0.07	0.12	0.15	0.14	0.32**	0.12
Multiracial	-2.33	2.21	0.35	0.21	0.39	0.21	1.46**	0.37	0.76*	0.20
<b>Significant Interactions</b>										
Solve Comm. Prob. * Latino	3.55*	1.60							0.36*	0.14
Traditional * Multiracial							-1.22**	0.47		
Write Long * Black									0.54*	0.25
Confidence * Asian									0.26**	0.08
Confidence * Multiracial									-0.18*	0.09
R <sup>2</sup>	.194		.140		.121		.161		.215	

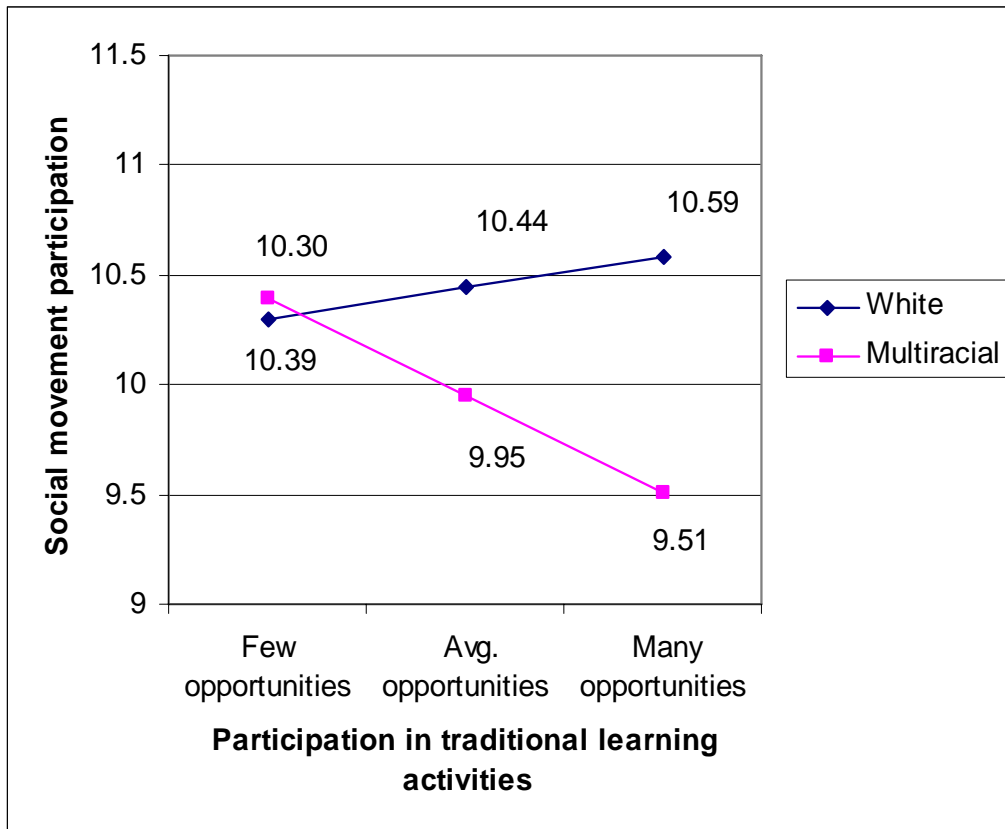
\* p ≤ 0.05, \*\*p ≤ 0.01

Figure 1. The relationship between learning in school to help solve community problems and civic knowledge in Latino and White students.



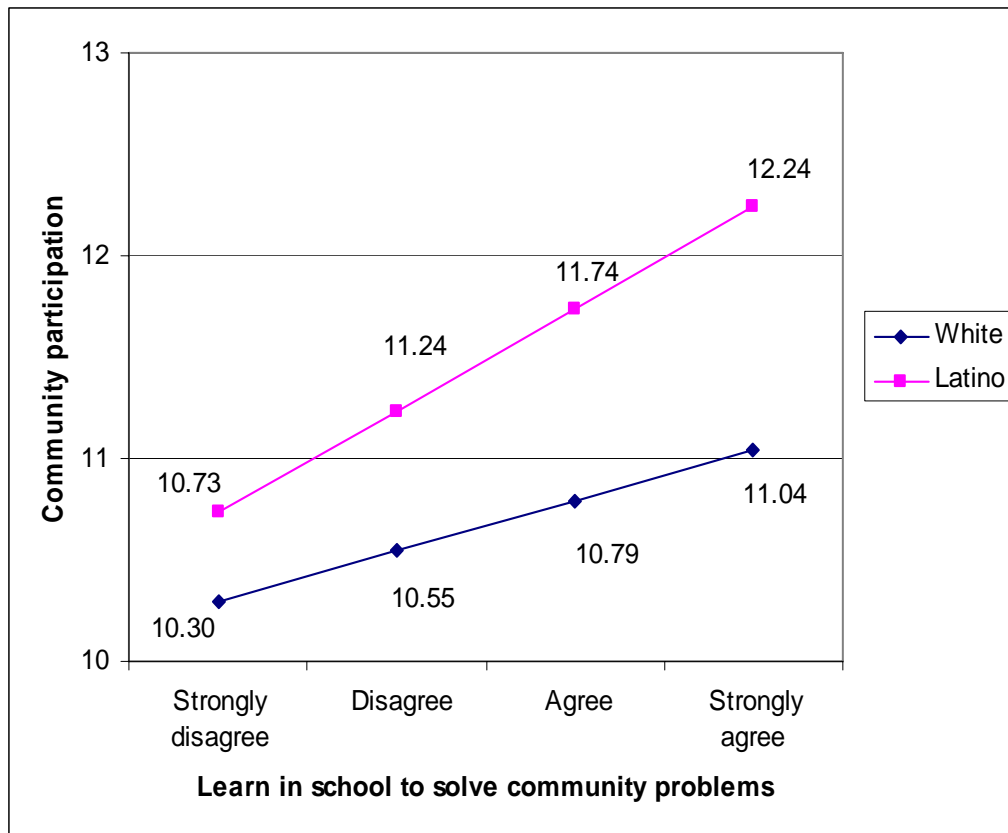
Note: Graph considers predictors at the mean.

Figure 2. The relationship between participation in traditional learning activities and norms of social movement participation in Multiracial and White students.



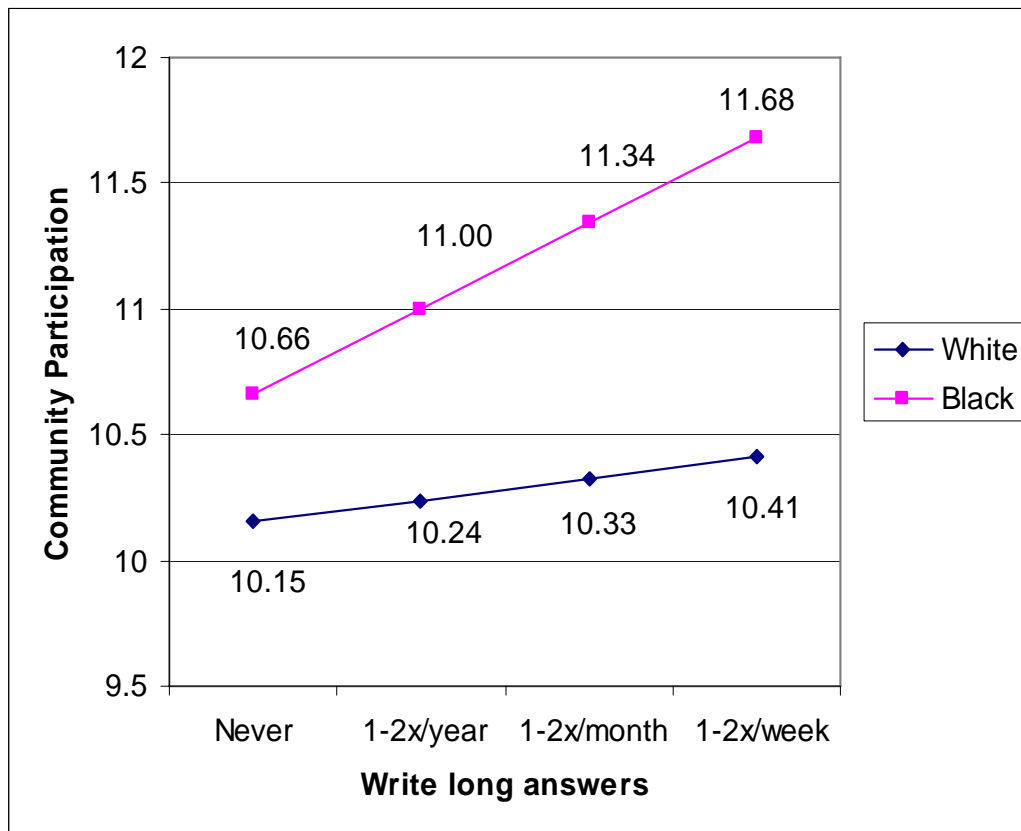
Note: Graph considers predictors at the mean.

Figure 3. The relationship between learning in school to solve community problems and expected community participation in Latino and White students.



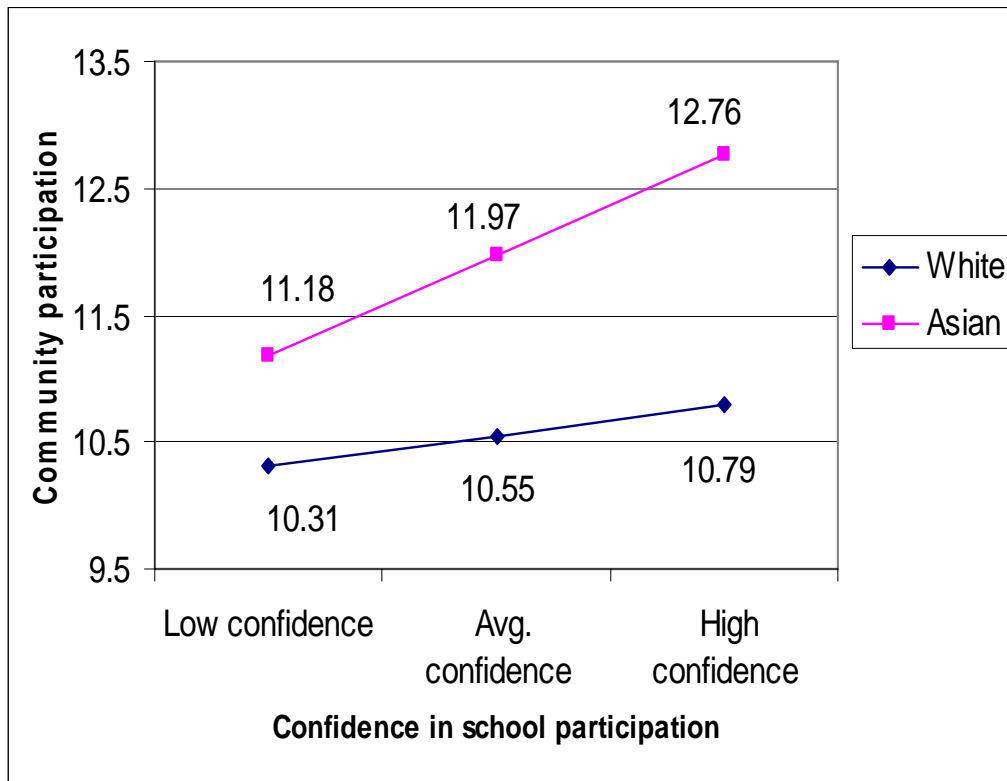
Note: Graph considers predictors at the mean.

Figure 4. The relationship between writing long answers to civic and political questions and expected community participation in Black and White students.



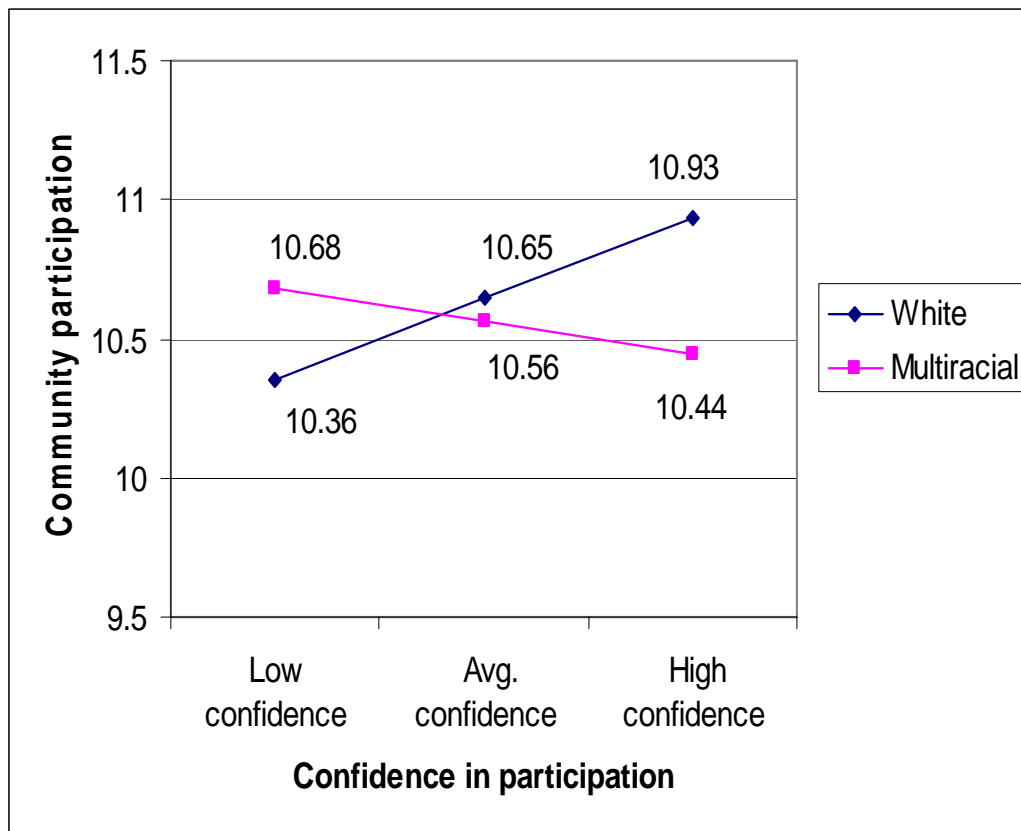
Note: Graph considers predictors at the mean.

Figure 5. The relationship between confidence in the value of school participation and expected community participation in Asian and White students.



Note: Graph considers predictors at the mean.

Figure 6. The relationship between confidence in the value of school participation and expected community participation in Multiracial and White students.



Note: Graph considers predictors at the mean.