

Exploring Racial/Ethnic Identity as a Mediator for the Relationship between Classroom
Diversity and School Belonging

by

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Certificate of Approval

This is to certify that the accompanying thesis by Rebecca Linn, Cameron Sipe, and Samarah Uribe Méndez has been accepted in partial fulfillment of the requirements for graduation with Honors in Psychology.

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Abstract

School belonging has been linked to many positive outcomes, including academic engagement, intrinsic motivation, and general self-esteem. However, most research studying school belonging has not directly examined the roles that classroom composition and racial/ethnic identity play. As American schools become increasingly racially/ethnically diverse, it is critical to consider the effect of these diverse classrooms on an individual's feeling of school belonging. This present study examines the relationship between classroom racial/ethnic composition and school belonging. Further, the study proposes that an individual's racial/ethnic identity will partially mediate the relationship between classroom composition and school belonging. We recruited 50 participants from two high schools in rural Eastern Oregon. Participants completed a series of measures to examine their racial/ethnic identity, sense of school belonging, and perceptions of school diversity. Classroom composition did not predict school belonging, nor was the relationship mediated by an individual's racial/ethnic identity. However, we did find that an individual's racial/ethnic identity significantly predicted their sense of school belonging. The present study contributes to a growing body of research that explores the implications of an increasingly diverse school environment and its implications for student development.

Keywords: classroom diversity, school belonging, racial/ethnic identity, Optimal Distinctiveness Theory

Background Literature

The U.S. demographic composition is rapidly changing: racial and ethnic minority populations are increasing at a faster rate than White populations in America (Cohn & Caumont, 2016). By 2045, racial and ethnic minority populations will make up more than 50% of the U.S. population (Cohn & Caumont, 2016). It is critical to better understand how this shift in the American demographic composition can impact human development in contexts like schools, workplaces, and households (Cohn & Caumont, 2016; Horowitz, 2019). Research has identified the school as one of the most significant contexts for the social, emotional, and intellectual development of children and adolescents (Eccles & Roeser, 2011). Thus it is important to inspect the ways in which an increase in classroom diversity impacts student development. Research has identified classroom demographic composition as a factor that particularly impacts racial/ethnic minority students and their feelings of school belonging (Kuo & Yang, 2017; Leszczensky, Flache, Stark & Munniksma, 2017). School belonging is a critical component of adolescent development because it has been linked to positive outcomes, including academic engagement, intrinsic motivation, and self-esteem (Faircloth & Hamm, 2005; Goodenow, 1993a; Roeser, Midgley, & Urda, 1996). Research has identified classroom composition as one of the factors that impacts feelings of school belonging, especially for minority students. Minority students in diverse classrooms have stronger ethnic pride, and ethnic identity is also associated with positive outcomes, such as academic achievement and overall adjustment (Hornsta, van der Veen, Peetsma, & Volmanet, 2015). This study proposes a mediation model, in which the relationship

between classroom composition and school belonging may be partially explained by an individual's racial/ethnic identity (REI).

The potential outcomes of the rapidly changing racial demographic composition of the country, including the resulting changing demographics of schools, should be studied to inform programs and interventions that promote positive outcomes and minimize negative ones. The mediation model proposed by this study offers one pathway to understand the relationship between classroom composition and school belonging. The implications of this study could help education systems promote school belonging among minority students by developing diversity approaches that highlight students' racial/ethnic identities.

School Belonging

Researchers in the fields of psychology and education have identified school belonging as a key construct in student development. School belonging refers to the extent to which a student feels “personally accepted, respected, included, and supported by others in the school social environment” (Goodenow, 1993a). Research has identified this psychosocial construct as a promotive factor in diverse aspects of adolescent development, such as academic outcomes and positive school behaviors (Roeser et al., 1996). In her research, Goodenow (1993a, 1993b) found that school belonging is related to intrinsic motivation and academic effort. Students who reported a high sense of school belonging are more likely to be academically engaged and to assign more value to academic work (Goodenow & Grady, 1993). Furthermore, school belonging best explains the relationship between motivation and academic success (Faircloth & Hamm,

2005). According to empirical studies and theoretical perspectives, motivational dispositions to perform well in school are more effectively developed when the student's needs for relatedness or affiliation are met (Faircloth & Hamm, 2005). Taken together, these findings indicate that students who feel valued, supported, and accepted in their school environment are more likely to invest themselves in academic work, and therefore, to succeed in school. Moreover, the positive outcomes related to school belonging extend beyond high school years. Pittman & Richmond (2010) examined retrospective reports of college students about their school belonging in high school and they found the construct to be a key predictor in several college-related outcomes such as adjustment, grades, perceived scholastic competence, work orientation, as well as internalizing and externalizing behaviors. Given the established relationship between school belonging and positive outcomes, we need to understand underlying mechanisms explaining how the construct operates at the individual level.

The relationship between school belonging and positive outcomes seem to operate under two main theories: the need-to-belong hypothesis (Baumeister & Leary, 1995), and Finn's (1989) identification-participation model. According to the need-to-belong hypothesis, humans are naturally driven to establish and maintain relationships with others in their communities (Baumeister & Leary, 1995). When an individual cannot connect with others in their community, the lack of a sense of belonging results in a variety of psychological and physical health problems, ranging from eating disorders to suicide (Baumeister & Leary, 1995). The school can provide a context for students to establish meaningful connections and fulfill their need to belong. The identification-participation model proposes that if a student does not feel welcomed and respected by

others in school, they are more likely to gradually disengage and eventually drop out of school (Finn, 1989). In adolescence, the school provides one of the most influential contexts for development, in part because youths tend to spend a substantial part of their day at school. Given the centrality of school and the associated outcomes, understanding what factors can promote a sense of school belonging in adolescents could provide an avenue for interventions at a personal, school, and even district level.

School Belonging and Racial/Ethnic Minorities. School belonging might play a particularly significant role in the academic success and well-being of ethnic-minority students. While adolescents in general face numerous challenges, ethnic minority students are likely to experience additional stressors that White students do not encounter. Stressors such as systematic socioeconomic disparities and discrimination can negatively affect minority students' well-being and experiences in school (Garcia Coll et al., 1996; Hernandez, Robins, Widaman, & Conger, 2017). School can provide a context for minority students to establish a sense of belonging that can buffer the harmful effects of these negative experiences (Barnes, 1991).

The positive effects of school belonging in racial minorities can be observed in its positive relationship to school engagement. School engagement has emerged as one of the most important dimensions of student success for ethnic minority students (Faircloth & Hamm, 2005). For example, studies show that school belonging can increase school engagement among African American students, which translates into increases in motivation and academic achievement (Booker, 2007). School belonging has also emerged as a protective factor against race-based school disparities. Although the achievement gap between White students and African American and Latinx students has

narrowed in the past years, ethnic minority students still account for a large percentage of high school dropouts (American Indian/Alaskan Native 10.1%, Hispanic 8.2%, and African American 6.5%) as compared with White students (4.3%; NCES, 2019). Research suggests that school belonging is negatively associated with absenteeism in Latinx students, meaning that students who feel like they are appreciated and respected members of their school communities are less likely to skip class (Sánchez, Colón, & Esparza, 2005). This finding seems to be in accordance with Finn's (1989) identification-participation model, which established a relationship between a student's sense of school belonging and their engagement in academic and extracurricular activities. When a student feels like they are part of the school environment and that school is an important part of their experience, they are more likely to put value in school-related goals and commit to behaviors and attitudes that will help them achieve their goals (Finn, 1989).

The relationship between school belonging and school engagement, reduced absenteeism, and positive self-perceptions point to school belonging as a potential area for intervention. For example, changes on a structural level (e.g., school culture and policies) can alter opportunities for student success via school belonging. Research shows that schools that adopt policies that acknowledge and value cultural diversity, and promote related practices such as combating racism, developing caring relationships between teachers and students, and endorsing various pedagogical tools are more effective at attenuating the gap in belonging and achievement between majority and minority students (Celeste, Baysu, Phalet, Meeussen, & Kende, 2019). On a smaller scale, classroom environment has emerged as an important context for adolescent's

positive development (Eccles & Roeser, 2011). Specifically, studies that have looked at the ethnic/racial demographic composition of the classroom propose that classroom diversity is particularly important for the well-being and academic development of ethnic/racial minority students (Hornsta et al., 2015; Kuo & Yang, 2019; Mok, Martiny, Gleibs, Keller, & Froehlich, 2016).

Classroom Composition

Within the school one of the most important factors for student development is the makeup of the classroom itself. Classrooms with a diverse student body (diverse meaning a variety of ethnicities, races, genders, nationalities, socioeconomic status, and cognitive abilities) can impact student reading scores, academic motivation, and even mental health (Belfi, Goos, De Fraine, & Van Damme, 2012; Hornsta et al., 2015; Kuo & Yang, 2019). Minority students in ethnically diverse classrooms are more likely to feel that they belong in the classroom and have a higher level of psychological well-being (Hornstra et al., 2015). However, when it comes to the impact of diverse classrooms on academic achievement, there are contradictory findings. Some researchers have found that ethnically diverse classrooms do not impact achievement when based on reading and math comprehension standardized tests (Hornsta, et al., 2015), but this is not a consensus in the field (Belfi et al., 2012; Mok et al., 2016).

A study conducted by Mok et al. (2016) that analyzed national data for German high school students found that when the population of Turkish-origin students was higher than average, test scores for the entire classroom were lower than the national average. This finding seems to suggest that minority students may have a negative

impact on a classroom's academic performance. However, research conducted by Hornstra et al. (2015) explained that an ethnically diverse classroom does not relate to diminished academic achievement for majority students and can lead to higher test scores for minority students. These varying results regarding the effect of diverse classrooms on achievement may be explained by low socioeconomic status and teacher prejudice. Students of lower socioeconomic (SES) backgrounds are shown to have lower academic performance; at the same time, SES students are statistically more likely to be members of a racial minority (The Annie E. Casey Foundation, 2019). Further research explains that the role of teacher expectations in the classroom can lead to a self-fulfilling prophecy; these biases primarily impact the achievement of students from stigmatized backgrounds (Eccles & Roeser, 2011; Jussim & Harber, 2005).

While there is contradictory research on the role of diversity in a classroom on academic achievement, the APA task force has concluded that non-segregated, diverse classrooms lead to more positive outcomes for students (APA, Presidential Task force on Educational Disparities, 2012). Currently, most research on the subject has been conducted in Europe and Asia, which highlights the need for research to be done in North America. Achievement is just one aspect of a student's school life, and diverse classrooms impact feelings of belonging to the school and one's racial/ethnic identity.

Research conducted by Kuo and Yang (2019) studied the wellbeing of Tawianese aboriginal minority adolescents in racial minority-only and minority majority mixed classrooms in Taiwan. Students in minority-only classrooms were more likely to compare themselves to their peers and were more likely to be depressed. Minority students in minority-only classrooms felt less socially accepted by peers and felt greater

levels of social rejection. These same patterns were not seen in classrooms which contained both minority and majority students, thus diverse classrooms led to greater feelings of belonging, social acceptance and well-being for minority students. Further research suggests that minority students who have a higher need to belong feel that they belong in diverse classrooms, whereas students who share the same need to belong in less diverse classrooms are more likely to feel socially rejected (Kuo & Yang, 2017). For those who have a higher need to belong, are more likely to find belonging in diverse groups.

The relationship between diverse classrooms and feelings of school belonging can be understood through Optimal Distinctiveness Theory (ODT), which explains that social identity is formed through the balancing of two factors: inclusion and individuality (Brewer, 1991). One needs to feel that they belong and that they are a member of the group, but also to be distinct and different from the mass. When an individual finds a balance between inclusion and individuality, optimal balance occurs. It is at this optimal balance where group identification is strongest (Brewer, 1991). Ormiston (2016) has theorized that the strongest way to understand the balance between belonging and distinction is through perception of the group. Research conducted by Garcia (2017) suggests that when one perceives themselves as unlike the group, they are less likely to feel that they belong. Thus, by measuring perception of diversity rather than actual demographic data, researchers are able to better understand the individual's relationship to the group as a whole (Ormiston, 2016). When analyzing how group diversity impacts feelings of belonging, it is critical to focus on the individual's perception of the group, especially as it might relate to other aspects of a student's development.

Research conducted on ODT by Leszczensky, Flache, Stark, and Munniksma (2017) specifically connects classroom composition to racial/ethnic identity development. Researchers found that there is a specific point of optimal distinctiveness for minority students. When a minority student shared racial traits with about 60% of their class, they had the highest ethnic pride. However, when the percentage of students that shared racial traits was significantly higher or lower than 60%, ethnic pride decreased. Overtime, students who remained in classrooms where this minority ratio stayed the same showed the most stable ethnic pride. While ODT provides a theoretical justification for the relationship between classroom composition and REI, more research needs to be conducted in order to fully understand how this relationship impacts student well-being.

Racial/Ethnic Identity

The discovery and formation of an individual's identity is considered by many developmental psychologists to be a critical task in adolescence (Erikson, 1968). Erikson's original identity development theory highlighted that reconciling one's social identities leads to feelings of competence and self-understanding. Competence and self-understanding are related to the development of a sense of belonging, and thus are an important aspect of positive psychological development (Baumeister & Leary, 1995; Erikson, 1968). An individual's identity is made up of many personal factors and group memberships, including gender, race/ethnicity, nationality, and sexual orientation. As the country becomes increasingly diverse, it is important to understand the development of a racial/ethnic identity. Building off of Erikson's research, Phinney (1989) proposes that the development of a racial/ethnic identity (REI) occurs primarily in adolescence, and can

be characterized by three distinct stages: unexamined ethnic identity, exploration/moratorium, and identity achievement.

The first stage is based on the theory of identity foreclosure (Marcia, 1980) and conformity to group norms (Atkinson et al., 1983). It is defined as the unexamined ethnic identity stage, in which an individual is not exploring their racial/ethnic identity and initially accepts the majority group's views and opinions. This means that individuals in this stage can hold negative internalized opinions of their racial/ethnic group, which may occur more in non-diverse classrooms for minority students (Phinney, 1993).

The second stage of the development of a racial/ethnic identity is called search or moratorium, and is considered by some psychologists to be instigated by a specific encounter that forces an individual to employ a new perspective of their racial/ethnic identity (Erikson, 1968; Cross, 1978). However, other research suggests that this type of encounter is not necessarily a prerequisite for racial/ethnic identity search (Atkinson et al., 1983). Rather, these researchers suggest that the individual's experience with increasing levels of dissonance might lead to the exploration of their racial/ethnic identity. Thus, a more diverse school setting might increase dissonance and prompt students to move from foreclosure into exploration (Atkinson et al., 1983). Similarly, a less diverse school could force internalized dissonance and lead students to enter the moratorium stage. Further, research on ODT has shown that classroom composition can affect a student's feeling of ethnic pride and belonging, for both racial/ethnic majority and minority students (Leszczensky et al., 2017). This suggests that not only do adolescents frequently experience identity exploration in high school, the composition of that school will likely impact their development.

The final stage in the development of a racial/ethnic identity is called identity achievement. This stage is marked by the resolution of uncertainties about one's identity and an acceptance and internalization of their racial/ethnic identity (Phinney, 1993). Research suggests that older adolescents ages 16-19 are likely to have achieved their racial/ethnic identity, thus younger adolescents will be in the exploration/search stage of the process (Phinney, 1993; Phinney & Chavira, 1992).

Research proposes different ways to understand the content of a racial/ethnic identity. Oyserman, Brickman and Rhodes (2007) suggested that the two broad components of an individual's identity are the importance of a racial/ethnic identity to one's self-concept, and one's perception of societal expectations and ideas of race. These two components have also been described as private versus public regard (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). It is important to note that while REI is a multidimensional construct, the current study is examining the importance of the individual's identity, or their private regard. However, elements of public regard are also critical to understand, especially in the context of schools and adolescence and future research can be done in that area. The current study focuses on the importance of one's REI to their overall self-concept, which can be understood by two sub-components: affect/belonging and centrality.

Racial/ethnic affect is defined by researchers as the focus on positive valence and feeling connected to the racial/ethnic group that one belongs to (Rivas-Drake et al., 2014; Oyserman, Brickman & Rhodes, 2007). This sub-component is based on prior research on social identity theory, which argues that the more an individual feels positively connected to a group, the more likely they are to experience feelings of self-worth

(Tajfel, 1982). This theory is complicated by research done on ODT, which suggests that for minority individuals, there is a point at which connection to a group does not lead to greater feelings of ethnic pride or esteem (Brewer, 1991). Prior research suggests that individuals who experience high levels of ethnic discrimination and have a positive racial/ethnic affect are likely to have higher self-esteem than their peers with a negative or less positive racial/ethnic affect (Romero & Roberts, 2003, as cited in Neblett Jr., Rivas-Drake & Umana-Taylor, 2012). It is also possible that individuals who have a positive racial/ethnic affect are less likely to attribute experiences of racial/ethnic discrimination to themselves or to their racial ethnic group (Seaton, Caldwell, Sellers & Jackson, 2010). This suggests that individuals may be using a positive racial/ethnic affect as a protective factor against negative experiences that are specific to their racial/ethnic identity.

The second sub-component of an individual's racial/ethnic identity that our study examines is centrality; it is understood as the degree to which an individual's racial/ethnic identity is an important part of their self-concept (Oyserman, Brickman & Rhodes, 2007; Sellers et al., 1997). Research suggests that individuals may attempt to distance themselves from an identity that is perceived negatively by others, which is common among minority individuals (Tajfel & Turner, 1986). This suggests that racial/ethnic centrality may vary as a result of how the individual perceived outgroup opinions about their racial/ethnic group. Alternatively, a study by Turner & Spears Brown (2007) found that minority schoolchildren are more likely to rate their racial/ethnic identity as important to their self-concept than racial/ethnic majority students. Further, research shows that negative experiences regarding one's REI only

lead to decreased centrality when the individual has negative racial/ethnic affect, thus establishing a relationship between centrality and affect (Deaux & Ethier, 1998).

Racial/Ethnic Identity as a Mediator. Literature suggests that an individual's racial/ethnic identity is related to both classroom diversity and school belonging. Further, the relationship between classroom diversity and school belonging may be explained by a racial/ethnic identity. Based on previous research, which shows that classrooms with higher diversity can increase feelings of school belonging among minority students, we expect to see a direct relationship between classroom composition and school belonging (Kuo & Yang, 2017). School environments that acknowledge the value of cultural diversity and affirm students' distinct cultural identities increase feelings of school belonging for racial/ethnic majority and minority students (Celeste et al., 2019).

Classroom composition will be related to racial/ethnic identity given previous research on ODT, which states that diversity can affect levels of ethnic/racial pride among students (Leszczensky et al., 2017). Finally, we expect that REI will independently predict school belonging. The relationship between REI and school belonging operates through identity validation theory, which suggests that diverse school environments that promote and validate student identities contribute to their identity development and ethnic affirmation (Rendón Linares & Muñoz, 2011). Although research has established these three independent relationships, there are only a few studies that have explored a possible explanation for the link between classroom diversity and school belonging, and our study hopes to fill this gap in literature.

The Current Study

The current study seeks to examine whether or not an individual's racial/ethnic identity mediates the relationship between classroom diversity and feelings of school belonging. We are looking to evaluate four main hypotheses. First, classroom composition will positively predict feelings of school belonging, in that students who perceive that they are in more racially/ethnically diverse classrooms will have more positive feelings of school belonging than non-racially/ethnically diverse classrooms. Second, perceptions of a diverse classroom composition will predict a positive racial/ethnic identity for participants. Third, a positive (high) racial/ethnic identity will predict high levels of school belongingness. Fourth, an individual's racial/ethnic identity will mediate the positive relationship between classroom composition and school belongingness in that individuals with a positive racial-ethnic identity are likely to experience more feelings of school belonging than individuals who do not have a positive racial-ethnic identity.

Method

Participants

Participants for the study were 53 individuals from two public high schools in rural, Eastern Oregon. The age of the participants ranged from 14 to 18, and the gender distribution was 34% male, 56.6% female, and 9.4% chose not to answer. Participants, sometimes identifying with more than one race, were 62.3% White, 1.9% Asian/Pacific Islander, 49.1% Latino/a, and 3.8% identified as American Indian or Alaska Native.

This sample was somewhat representative of the racial composition of the schools we sampled from: School 1 (40% White, 1% African American, 1% Asian/Pacific Islander, 56% Latino/a, 0% American Indian or Alaska Native, and 2% “other” or mixed race); School 2 (30% White, 1% African American, 1% Asian/Pacific Islander, 67% Latino/a, <1% American Indian or Alaska Native, and <1% “other” or mixed race).

We relied on convenience sampling for this project as it is easiest for data collection in short periods of time and allows for large samples to be collected. However, convenience sampling also introduces potential sampling error and low external validity. We sampled from two high schools, and publicized the study during lunch and passing periods to ensure all students would have an equal opportunity to hear about the study. We presented this study to high school students as a survey about school attitudes. Consent forms were handed out in both English and Spanish to make the study accessible to more students and parents. In addition, we attended a parent-teacher conference at one high school to promote the study to parents and students. Interested students at both

schools were sent home with a parent/legal guardian consent form. After students brought the signed consent form to school and the researchers collected the forms, we emailed each participant a code and link to the survey. If a participant did not have access to a computer, we scheduled a time to have them complete the study in person on their school's campus in an effort to ensure equal access. Each participant reviewed and signed an informed assent form. Upon completion of the study, each student's name was entered into a raffle to win one of four or five available gift cards, depending on the size of the school they attended. The gift cards were valued at \$10 each, to local coffee shops.

Procedure

Participants completed a survey in Qualtrics (survey software) that was administered online. Students were first asked to identify the high school they attend. The following set of questions asked participants to report their classroom racial/ethnic composition. Next, participants completed one measure for school belonging and two measures for racial/ethnic identity: one that examined affect and a second that examined identity centrality. Students then completed a series of shorter measures that were included as potential covariates based on prior research: school discipline, bullying, peer group and teacher racial/ethnic identities, academic tracking, and basic demographic information. After completing these measures, students were debriefed on the study.

Measures

Feelings of School Belonging. The Psychological Sense of School Membership (PSSM; Goodenow, 1993a) was used to assess the participants' feelings of school belonging or attachment to the school. The scale asked participants to respond to 18 statements using a 5-point Likert scale ranging from (1) *not at all true* to (5) *completely true*, with a 6th option that said *I prefer not to respond*. See Appendix A for the complete measure. Goodenow's (1993) original PSSM study obtained a Cronbach's alpha ranging from .803 to .875. The Cronbach's alpha for this measure in our study is 0.884. Previous studies have demonstrated the construct validity of PSSM through a series of correlations with school attendance, student social status, school location (urban versus suburban), and recentness of student enrollment (Heights, 1998).

Racial/Ethnic Identity Belonging. The Ethnic Affirmation and Belonging subscale from the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used to examine how positively an individual feels towards their racial/ethnic group and identity. This subscale is comprised of five items, and participants responded using a 4-point Likert scale ranging from (1) *strongly agree* to (4) *strongly disagree*, with a 5th option that said *I prefer not to respond*. See Appendix B for the complete measure. The original Affirmation and Belonging subscale of the MEIM yielded a Cronbach's alpha of 0.75 and 0.86 for high school and college populations, respectively. The Cronbach's alpha of this measure for our study was poor ($\alpha = 0.413$).

Racial/Ethnic Identity Centrality. The Centrality subscale of the Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1997) was used to investigate how central an individual's racial/ethnic identity is to their overall self-

concept. This subscale contains eight items, and participants responded using a 7-point Likert scale ranging from (1) *strongly disagree* to (7) *strongly agree*, with an eighth option that said *I prefer not to respond*. See Appendix C for the complete measure. The original centrality subscale of the MIBI had a Cronbach's alpha 0.77. The Cronbach's alpha of this measure for our study is 0.844.

Classroom Composition. This variable was operationalized in two different ways that focused on perceived diversity. First, students reported their perception of the percent of their classmates that were racial/ethnic minority students. Second, students reported their perceptions of the percent of their classmates who had the same racial/ethnic identity as themselves. The two different questions attempted to capture the overall perceived diversity of the class, and the individual identification with same racial/ethnic group members. These measures focused on perceived diversity instead of objective diversity based on research on social identity theory that suggests perceptions are more closely tied to identity development (van Knippenberg & Schippers, 2007, as cited by Ormiston, 2016). Additionally, the reported perceived diversity was similar to state reported data of the demographic makeup of each school.

Covariates

Disciplinary history was recorded by asking participants how often they were disciplined by teachers followed by how often they were disciplined by the school administration. Students then reported how often they have been bullied and how often they have bullied someone else in the past month. Friend group composition was measured by students identifying the initials of five friends followed by the reporting of

the racial category which best fits each friend. The presence of a same-race teacher that fulfills a mentorship role was measured in a two-part question. The student was asked to identify a teacher by their initials and then to report their teacher's race. Participants were asked to report if they were in an academic track in school (e.g. honors classes, dual enrollment, Running Start, IB Program, Advanced Placement). Socioeconomic status was measured in a one-item scale that asked for family income. The options ranged from "Less than \$10,000" to "150,000 or more," and they increased in \$10,000 increments.

Results

This study examined the relationship between classroom composition and school belonging, and considered whether that relationship was partially explained by an individual's racial/ethnic identity. We began by running descriptive statistics and correlations for our primary variables of interest. Next, we ran four separate mediations to test the relationship described above. The mediations used one of two measures of classroom composition and one of two measures for racial/ethnic identity. For each mediation model, we hypothesized that higher levels of classroom diversity would lead to higher feelings of school belonging, and that this relationship would be mediated, or accounted for, by an individual's racial/ethnic identity.

Prior to testing our mediation model, we conducted a series of descriptive statistics and correlations between five variables of interest: Minority Percentage, Race-Match Percentage, Race Centrality, Race Belonging, and School Belonging. For Minority Percentage, which asked participants what percent of their school were racial/ethnic minority students, scores ranged from 16 to 100 ($M = 68.08$, $SD = 20.63$). Race-Match Percentage recorded the percent of students who were considered, by the participant, to be of the same racial-ethnic group and it has a range from 5 to 94 ($M = 47.62$, $SD = 21.96$). The scores for the race centrality measure ranged from 2.50 to 6.00 ($M = 4.065$, $SD = 0.86$) and the scores for the race belonging measure ranged from 1.80 to 4.00 ($M = 3.28$, $SD = 0.59$). Finally, scores in the school belonging measure ranged from 2.44 to 4.94 ($M = 3.74$, $SD = 0.55$).

Bivariate correlations among the five variables found that Minority Percentage had a significant positive correlation with Race Match Percentage, $r(49) = .39$ ($p = .005$), which is a medium effect size. This result was expected and indicates convergent validity between the two predictor variables. School Belonging was significantly and positively correlated with Race Centrality, $r(46) = .37$ ($p = .010$), and with Race Belonging, $r(46) = .46$ ($p = .050$). The correlation between School Belonging and Race Centrality, and the one between School Belonging and Race Belonging are medium-large. The positive correlation indicates that as students reported stronger feelings of school belonging, they also reported higher levels of racial/ethnic centrality and belonging. Finally, Race Centrality was significantly correlated with Race Belonging, $r(46) = .51$ ($p < .001$). This strong, positive correlation suggests that as Race Centrality increases, Race Belonging also increases. This relationship indicates likely construct validity for the overall racial/ethnic identity construct. All correlations are shown in Table 1.

While the measures of classroom composition and school belonging were not significantly correlated with one another, we conducted mediation analyses because of the practical implications of potential relationships among the variables. We ran four mediation models to test our hypotheses using the Andrew F. Hayes Process procedure 3.1 in SPSS.

Models with Minority Percentage as Predictor Variable

Classroom composition, as measured by Minority Percentage, did not predict participant school belonging for either mediation model (Race Belonging or Race Centrality). Minority Percentage did not predict Race Centrality or Race Belonging,

though it was trending towards significance for Race Belonging ($p = .0503$). However, Race Belonging and Race Centrality both independently predicted School Belonging ($p = .0046$ and $p = .027$, respectively). Results of the mediation models that used Minority Percentage as its predictor are displayed in Table 2. In addition, Figures 1 and 2 show the mediation models tested with Race Belonging and Race Centrality, respectively, as the mediator.

Models with Race Match Percentage as Predictor Variable

In addition to testing Minority Percentage, we ran mediations using Race Match Percentage as the predictor variable. As there was no significant correlation between Minority Percentage and school belonging, the mediation model also showed no significant relationship between Race Match Percentage and School Belonging. Race Match Percentage did not predict Race Centrality, but it was trending towards significantly predicting Race Belonging ($p = .0549$). Further, Race Belonging and Race Centrality both significantly predicted School Belonging in their respective models ($p = 0.0019$ and $p = 0.0147$, respectively). The results for the mediation models tested with Race Match Percentage are shown in Table 3. Figures 3 and 4 display the mediation models with Race Belonging and Race Centrality as the mediator.

Discussion

As the country becomes increasingly diverse, schools become more diverse, thus it is critical to understand the impacts that diversity has on child development. The classroom is one of the settings in which adolescents spend the most time, and research has shown that schools impact development at nearly every level -- from intellectual capacities to psychological well-being (Eccles & Roeser, 2011). School belonging is one of the mechanisms through which schools impact students' development. Research shows that school belonging is related to several positive outcomes such as achievement and self-esteem (Goodenow, 1993b). High schools provide a unique opportunity to better understand how students develop a sense of school belonging and its relationship to identity development, in part because many high schoolers are in the exploration stage of identity formation (Phinney, 1993). The present study considers the role of diverse classrooms in building a positive racial/ethnic identity, and if this identity influences the level of attachment an individual feels to the school. We hypothesized that an individual's racial/ethnic identity (REI) would mediate the relationship between classroom composition and school belonging. Contrary to our primary hypothesis, REI did not mediate the relationship between classroom composition and school belonging. Within the mediation model, classroom composition had no significant relationship with school belonging or REI. However, both measures for classroom composition (Race Match Percentage and Minority Percentage) had a near significant relationship with one measure of REI (Race Belonging). Finally, both measurements for REI were significantly related to school belonging. While the results do not directly support our

mediation model, they still provide important insights and should be considered with existing theories.

We found a significant relationship between REI and school belonging, which was maintained with both Minority Percentage and Race Match Percentage as the predictor variable. This finding suggests that individuals who felt their racial/ethnic identity was central to their overall identity and who felt a sense of belonging to their racial/ethnic group, had a greater feeling of school belonging compared to individuals who felt less positively about their racial/ethnic identity. This may be explained in part by identity validation theory, which states that if students' academic contributions and social identities are valued, they will have stronger feelings of belonging (Rendon Linares & Munoz, 2011). Identity validation theory coincides with further research which discusses the role of school staff who honor a diverse student body. Spears Brown and Chu (2012) found that in racially/ethnically diverse schools, students had stronger REIs and feelings of belonging when teachers and administrators promoted and valued multiculturalism. While the present study did not ask students or staff members about school programs which encourage diverse voices, both schools contain bilingual programs, migrant parent liaisons, and encourage minority leadership. Therefore, the school environment is a likely explanation for the positive relationship between REI and school belonging.

Interactions between students and administrators is an important factor for student development, however, peers play a key role in impacting identity and belonging. Bullying is relatively common in American schools, and has been identified as a negative factor for school belonging (Bradshaw, Brennan, and Sawyer, 2008). Prior research has

identified that when school minority population reaches 60% or above perceptions of discrimination towards minority students peak (Seaton & Yip, 2009). When students feel that they are being bullied, discriminated against, or mistreated, self-esteem, school bonding, and academic motivation decrease (Dotterer, McHale, & Crouter, 2009; Wong et al. 2003). The relationship between REI and SB can potentially be explained by a lack of bullying in the schools researched, further research should further explore the impacts of bullying on REI development.

While some individual relationships within the mediation were significant, the mediation model as a whole was not supported by our results. This could be explained in part by the complexity of the construct of racial/ethnic identity. This study focused on two elements of a racial/ethnic identity: centrality and belonging. However, REI is a multidimensional construct and there are other variables which may impact REI development which were not included in the present study, including experiences with racism, discrimination, generation status, and community (Umana-Taylor et al., 2014). Due to the complexity of race and ethnicity, it is possible that the construct was only partially accounted for. Future research could employ a more robust measure of a racial/ethnic identity.

In addition to the operationalization of an individual's REI, the operationalization of classroom composition may explain the lack of significance in the mediation model. Specifically, classroom composition was measured through questions about perceived diversity, but did not utilize actual demographic data from the school districts. Participants reported their perception of the percentage of minority students in their class and the percentage of students who look like them. Our study focused on student

perceptions of minority populations due to theory by Ormiston (2016) which suggests that perception of minorities speaks more to individual feelings about a group. However, further research conducted by Garcia (2017) found that perceptions of sameness may change depending on the race of the individual. Specifically, White participants felt a greater sense of sameness to mixed race groups than the Black participants. This relationship has primarily been studied with White and African American populations, and may not extend to the present population, which is predominantly White and Latinx. Further, Ormiston (2016) theorizes that individual differences in the need to belong may not be tied to race alone and may speak to individual differences in the need to belong. Therefore, variation in participant perception and needs of the group may change the relationship between classroom composition and school belonging.

The need to belong and be distinct is discussed in Optimal Distinctiveness Theory (ODT), which suggests that in groups individuals must find a balance between inclusion and individuality, and when this balance is found, belonging and identity are strengthened (Brewer, 1991). Within this theory is the idea that there is a specific point at which diverse groups will not lead to an increase in positive feelings for the individual, about themselves or about the group. Specifically, ODT suggests that when individuals are in groups that reach around 60% group sameness, their feelings of belonging will be strongest. Research conducted by Leszensky et al. (2017), which focused on how school diversity impacts pride, found that students are most likely to feel the highest levels of ethnic pride when sameness is around 60%. Students who were significantly above or below the 60% sameness saw a decrease in ethnic pride. The present study focused on two schools whose minority populations were above 60%, thus following in line with

ODT, these students may have exceeded their optimal balance of inclusion and individuality leading to less positive feelings towards their REI and lower feelings of belonging.

While ODT may explain the non-significant mediational model, the findings could also be explained by the range of classroom composition. The present study sampled from two high schools in rural eastern Oregon. The distribution of ethnic majorities and minorities in this location might not be representative of other locations in the United States; both schools featured higher populations of minority students than majority students. All students experienced a high minority population in classes, which led to a restricted range. Perhaps if the participant population featured a wider variety of schools with different levels of diversity, the mediation may have been supported. Participant population, along with other variables discussed above, highlights both a limitation of our study and an area for future research.

Limitations

While the results of the study do not directly support our hypothesis that REI would mediate the relationship between classroom composition and school belonging, based on a significant amount of prior research, we maintain that classroom composition can predict school belonging, and that an individual's racial/ethnic identity may influence that relationship. The lack of significant results could be due to limitations in the study or by confounding variables such as school environment, or different types of diversity. However, we did find a significant relationship between REI and school belonging, which suggests that high levels of centrality and belonging in a racial/ethnic identity will

predict higher levels of school belonging. It is important that all our results are considered alongside the limitations of our study.

There were several limitations to the design of this study. First, the study cannot claim causal relationships among any of the variables because of its non-experimental design. Participants could not be randomly assigned to diverse or non-diverse classrooms for logistical and ethical reasons, thus making it impossible to isolate classroom diversity as a causal variable. Implications for the well-being of racial/ethnic minority students also discouraged researchers from inducing negative feelings and thoughts about racial/ethnic groups, thus preventing variable manipulation. Additionally, the present study does not inform the directionality of these relationships. For example, while a school environment that validates a student's racial/ethnic identity might lead to higher levels of school belonging for that individual, it is also possible that a strong connection to their school represents a secure context where the student can engage in the identity exploration process that ultimately results in positive racial/ethnic identity achievement.

Furthermore, our measure for Race/Ethnic Identity Belonging showed very low internal reliability ($\alpha = 0.413$). Prior research that has used the same measure reported higher levels of internal reliability when used in a similar population. This is particularly interesting because the relationship between this variable and classroom composition trended towards significance, and the low reliability of the measure could have contributed to not detecting significance. This limitation contrasts with the study's ecological validity. Most recruitment and participation in the study took place within the school facilities, which allowed students to complete the measures in the context where

our constructs are most salient. Thus, one could more confidently generalize the present findings to a real-life setting.

The present study relied on self-report for data collection given the nature of the racial/ethnic identity and school belonging constructs, and in response to the present study's limited timeline and resources. This method represents its own set of limitations. Participants' answers could have been influenced by several forms of response bias, including social desirability. These biases are especially relevant to our sample due to the salience of peer relationships during adolescence. Following adequate research practices for working with students at school, we recruited participants with the approval and support of school administration and teachers. This could have provided cues that influenced students to respond in accordance with perceived school expectations.

Post-hoc power analyses reveal that the present study is severely underpowered (on average and across the four models, the power for the nonsignificant relationships was 0.05), given our sample size and effect sizes. This means that we were less likely to detect a significant effect even if there was one, thus increasing the likelihood of a type II error. This might be especially relevant in the relationship between Race Match Percentage and Race Belonging, which tended towards significance in the present study. Using a larger sample size could address this limitation.

Our results should be interpreted with potential confounding or uncontrolled variables in mind. As noted in the discussion, the school culture could impact the sense of school belonging that individuals develop. Further, the support from teachers and administrators for minority students was not investigated and could influence identity development and school belonging. In addition, the study did not consider racial/ethnic

affiliate groups that the schools may or may not have, which would likely influence REI development.

Future Directions

The present study offers several opportunities for future research. The sample came from two high schools in rural eastern Oregon. The distribution of ethnic majorities and minorities in this location might not be representative of other locations in the United States. Most of the participants in this sample identified as White (64%) or Latinx (49%). Thus, future research could continue to inform the field by exploring how these relationships might be different in schools where the majority/minority distribution is more diverse. Research shows that different ethnic groups experience relationships differently at school given cultural differences (Faircloth & Hamm, 2005). For example, some cultures might emphasize familial relationships over school-based relationships, or might influence parental socialization regarding school (Ping & Berryman, 1996; Gaines, 1997, as cited by Faircloth & Hamm, 2005). Furthermore, research could explore these relationships in individualistic and collectivist cultures, where inclusion and distinctiveness are prioritized differently.

Future research could contribute to this growing field by exploring other variables related to our main constructs. While this study used classroom composition to explore the relationship of diversity with racial/ethnic identity and school belonging, future research could explore if friend group composition presents different results. According to research on intergroup contact theory, being merely exposed to a diverse group of peers in the classroom might have a different impact in racial/ethnic identity compared to

having friends with different racial/ethnic backgrounds (Douglass, Mirpuri, & Yip, 2017). Studies have found that minority adolescents who have friends from the same racial/ethnic group are more likely to engage in ethnic/racial behaviors, have conversations about their racial/ethnic heritage, and seek support for racial/ethnic stressors (Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005). All these behaviors have the potential to influence how youths develop feelings about their racial/ethnic identity.

Research in this field is especially relevant in a sociopolitical context where racial and ethnic minority individuals experience increasing stressors that might lead to negative feelings about their cultural groups. Regardless of the specific directions future researchers pursue, it is important that we continue to explore the role that racial and ethnic diversity in school settings can have on youth development.

Conclusion

This study examined the relationship between classroom diversity, an individual's racial/ethnic identity, and school belonging. Research has established that school belonging is critical to an individual's academic motivation and overall success, especially those in racial/ethnic minorities (Dotterer, McHale & Crouter, 2009). While prior studies have examined classroom composition and school belonging, few have considered if the relationship is partially explained by an individual's feeling about their racial/ethnic identity. The present study works to fill a gap in research by examining classroom composition, REI and school belonging together, but more needs to be done in order to fully understand the impact of diversity in schools. While our study did not find a statistically significant relationship between classroom composition and school belonging, we did have results that suggest that classroom composition may predict racial/ethnic identities, and we found that a racial/ethnic identity positively predicts feelings of school belonging. The theoretical complexity of the constructs studied here provide justification for our hypotheses as well as an abundance of future research opportunities. The study affirms the importance of school belonging for racial/ethnic minority students, especially as it relates to developing a positive racial/ethnic identity. The study also offers a pathway for understanding how a diverse school can promote both racial/ethnic identity development and positive feelings about school. Given the rapid change in the demographic compositions of American school, further research in this field can inform interventions that support and promote the positive development of minority students.

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Tables and Figures

Table 1

Pearson's Correlations

	School Belonging	Minority %	Race Match %	Race Belonging	Race Centrality
School Belonging	1				
Minority Percentage	0.252	1			
Race Match Percentage	0.126	.385**	1		
Race Belonging	.457**	0.287	0.279	1	
Race Centrality	.367*	0.209	0.155	.508**	1

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

Mediation Models with Minority Percentage as Predictor

Race Centrality as Mediator				
<u>Relationship</u>	<u>B</u>	<u>SE B</u>	<u>t</u>	<u>p</u>
c	0.01	0.00	1.74	0.0888
c'	0.01	0.00	1.30	0.1996
a	0.01	0.01	1.43	0.1595
b	0.25	0.09	2.29	0.027
Race Belonging as Mediator				
c	0.01	0.00	1.74	0.0888
c'	0.01	0.00	0.95	0.3475
a	0.01	0.00	2.01	0.0503
b	0.40	0.13	2.98	0.0046

Table 3

Mediation Models with Race Match Percentage as Predictor

Race Centrality as Mediator				
<u>Relationship</u>	<u>B</u>	<u>SE B</u>	<u>t</u>	<u>p</u>
c	0.00	0.00	0.88	0.3811
c'	0.01	0.00	0.53	0.5980
a	0.01	0.01	1.06	0.2933
b	0.23	0.09	2.54	0.0147
Race Belonging as Mediator				
c	0.00	0.00	0.88	0.3811
c'	0.00	0.00	0.02	0.9877
a	0.01	0.00	1.97	0.0549
b	0.43	0.13	3.30	0.0019

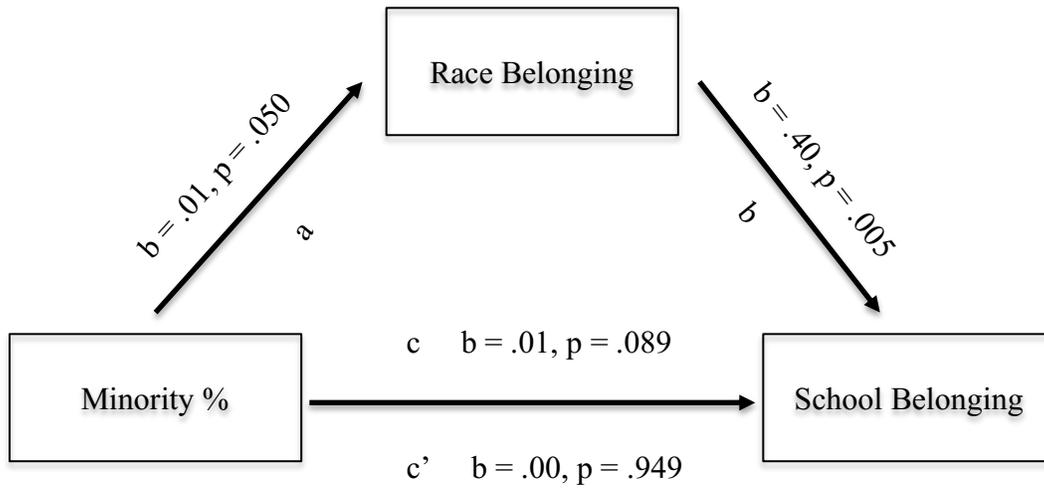


Figure 1. Mediation model with Minority Percentage as the predictor variable and Race Belonging as the mediation variable.

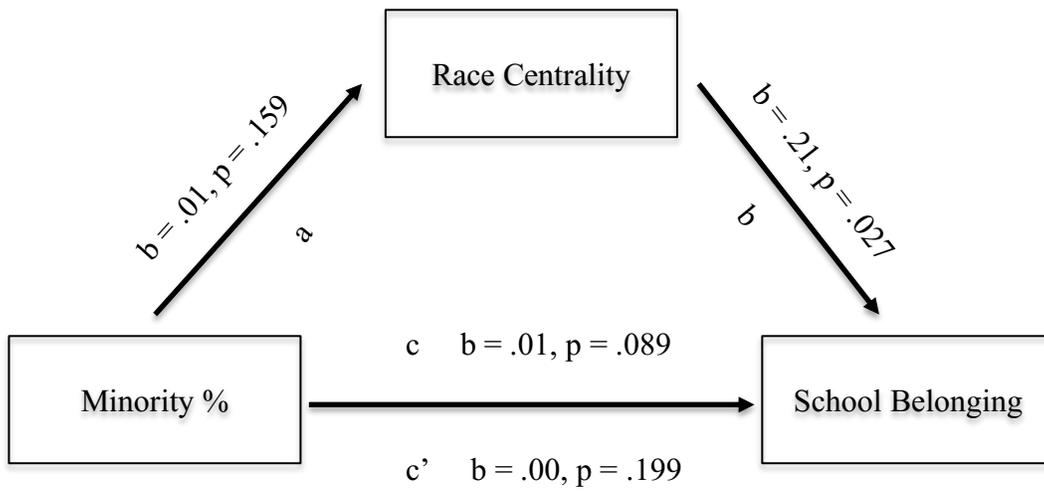


Figure 2. Mediation model with Minority Percentage as the predictor variable and Race Centrality as the mediating variable.

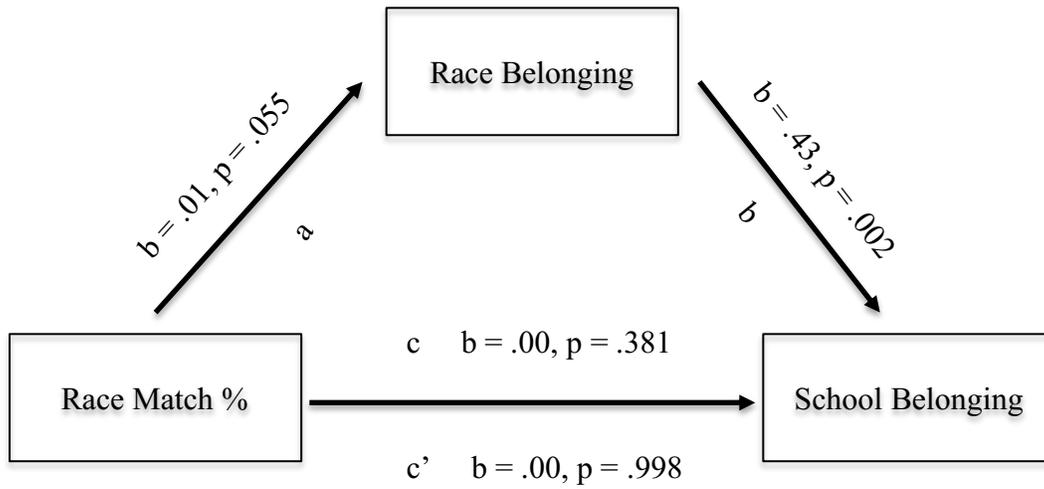


Figure 3. Mediation model with Race Match Percentage as the predictor variable and Race Belonging as the mediating variable.

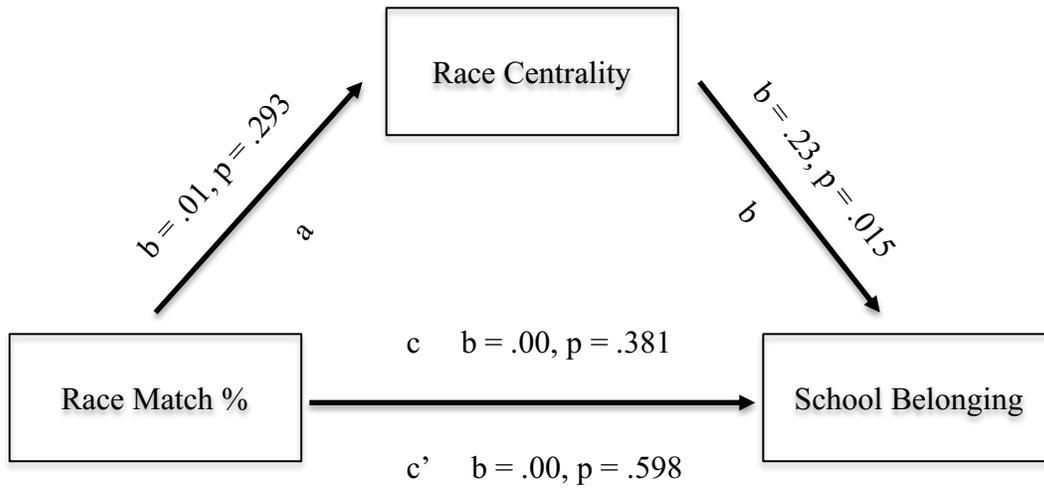


Figure 4. Mediation model with Race Match Percentage as the predictor variable and Race Centrality as the mediating variable.

Appendix A

Psychological Sense of School Membership Scale

The Psychological Sense of School Membership (PSSM) Scale

1. I feel like a real part of (name of school).
2. People here notice when I'm good at something.
3. It is hard for people like me to be accepted here. (reverse coded)
4. Other students in this school take my opinions seriously.
5. Most teachers at (name of school) are interested in me.
6. Sometimes I feel as if I don't belong here. (reverse coded)
7. There's at least one teacher or other adult in this school I can talk to if I have a problem.
8. People at this school are friendly to me.
9. Teachers here are not interested in people like me. (reverse coded)
10. I am included in lots of activities at (name of school).
11. I am treated with as much as other students.
12. I feel very different from most other students here. (reverse coded)
13. I can really be myself at this school.
14. The teachers here respect me.
15. People here know I can do good work.
16. I wish I were in a different school. (reversed coded)
17. I feel proud of belonging to (name of school).
18. Other students here like me the way I am.

Appendix B

The Multigroup Ethnic Identity Measure. Affirmation and Belonging Subscale

The Multigroup Ethnic Identity Measure (MEIM). Affirmation and Belonging Subscale.

1. I am happy that I am a member of the group I belong to.
2. I have a strong sense of belonging to my own ethnic group.
3. I have a lot of pride in my ethnic group and its accomplishments.
4. I feel a strong attachment towards my own ethnic group.
5. I feel good about my cultural or ethnic background.

Appendix C

Multidimensional Inventory of Black Identity. Centrality Scale.

Multidimensional Inventory of Black Identity (MIBI). Centrality Scale.

1. Overall, being Black has very little to do with how I feel about myself. (reverse scored)
2. In general, being Black is an important part of my self-image.
3. My destiny is tied to the destiny of other Black people.
4. Being Black is unimportant to my sense of what kind of person I am. (reverse scored)
5. I have a strong sense of belonging to Black people.
6. I have a strong attachment to other Black people.
7. Being Black is an important reflection of who I am.
8. Being Black is not a major factor in my social relationships. (reverse scored)