School Matters: The Contribution of Positive School Climate to Equal Educational Opportunities among Ethnocultural Minority Students

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Abstract
This study carefully examined compensating, mediating, and moderating effects of positive school climate on the relationship of socioeconomic status (SES) and achievement in a nationally representative sample of ethnocultural minority Arabic speaking students in Israel ($N = 21,873$). Positive school climate was predominantly influential in schools with vulnerable ethnic groups and students from disadvantaged backgrounds. Narrower achievement gaps among students with different personal SES backgrounds were achieved in schools with positive climates. Results suggest improving school climate can increase students’ academic opportunities and offer special benefits for students from less advantaged backgrounds. Implications for research, practice, and policy are discussed.

Keywords
educational achievement, policy, poverty/disadvantage, social inequality, socioeconomic status/social class, victimization

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Educational scholars, practitioners, and policy makers worldwide are increasingly concerned with multiple social inequalities in education. Substantial public and professional attention has been given to the ever-growing problem of disparities in opportunities for academic success for students with lower socioeconomic status (SES), particularly those of different cultural and ethnic origins (Reardon, 2013). Ethnic minority students often struggle with numerous risk factors that jeopardize their ability to prosper academically, including poorer home environment and associated disorganization and safety problems in low-income neighborhoods, lower parental education (Sharkey, 2013; Yoshikawa et al., 2012), single-parent family structure, fewer family resources, parental distress and pressure, and neighborhood crime (Roy & Raver, 2014). Cultural minority students are also more prone to experiencing prejudice and negative judgments in schools, jeopardizing their academic success (Voight et al., 2015).

Despite major obstacles for academic success experienced by ethnocultural minority youths and those with lower SES backgrounds, many emerge with positive academic outcomes. An essential school-level construct known to improve academic outcomes and hamper the negative influence of poor SES background and racial minority status on academic achievement is school climate. A positive school climate is one in which students feel safe and have caring relationships with peers and adults, a sense of belonging and connectedness, and disapproval of risky behaviors among peers (Cohen et al., 2009).

**Statement of the Problem**

There is a deficient research about the theoretical nature of the relationships among student and school SES, school climate, and academic performance; the scientific literature has provided equivocal, often confusing descriptions of how positive school climate contributes to student achievement (Berkowitz et al., 2015). Further, prior research indicated the contribution of positive school climate to academic achievement differs among students with different ethnocultural affiliations and between schools with high and low SES, although inconsistent and contradictory findings emerged. Some studies indicated a predominant influence of school climate on the academic success of students with lower SES and ethnic minority status, whereas others indicated the opposite (Berkowitz, Moore et al., 2017). The current study addressed these major gaps.

*Positive school climate and ethnic minority students.* Several studies found positive qualities of school climate significantly influenced the academic success
of students with lower SES and ethnic minority status (Crosnoe et al., 2004; Hopson & Lee, 2011; López, 2012). These authors argued that because the starting point of these students is typically much lower than students of higher SES backgrounds, every resource might substantially contribute to their success. Further, racial minority and low-SES students often experience exclusion, prejudice, and negative teacher and student judgments. Thus, they are disproportionately influenced by school efforts to encourage ethnic inclusion, support for cultural pluralism, and teachers’ efforts to engage their families, as opposed to their White counterparts, for whom such aspects of school climate are more redundant (Watkins & Aber, 2009).

In contrast, other research indicated that positive school climate contributed less to academic achievement for ethnic minority students and those in low-SES schools (Hopson et al., 2014; Johnson & Stevens, 2006). These authors stipulated that the many risks associated with limited language proficiency, poverty, low school funding, and unqualified teachers have an overwhelmingly negative effect on schools catering to socially and economically disadvantaged youths, overpowering the potential contribution of positive school climate to their academic prosperity. This could be especially evident in extremely racially segregated urban schools serving many students living in extraordinary circumstances or experiencing neglect and abuse. This approach supports prior assumptions of the limited ability of schools to help students from lower SES backgrounds achieve higher grades (Coleman et al., 1966).

Positive climate and academic achievement. Some researchers have argued that positive school climate increases the likelihood of positive academic outcomes independently and compensates for the negative contribution of low SES to academic achievement (Willms & Somer, 2001). Other researchers have argued that schools affected by high poverty and crime, low SES, and additional risk-related social issues often fail to establish a safe and supportive climate due to family and community-related stressors affecting the school setting and staff. However, if such schools could create a more supportive climate, this could theoretically mediate the negative effects of low SES on achievement (Hughes et al., 2008). In contrast, some scholars indicated that the negative contribution of low SES is less pronounced in schools with positive climate (Hopson et al., 2014). This interactive model proposes that school climate moderates the intensity of the effect of low SES background on academics.

Each mechanism has different implications for theory and practice relevant to equality in educational opportunities for ethnic minority students and
those with less advantaged backgrounds (Berkowitz et al., 2015), yet the exact mechanism by which positive school climate is associated with higher achievement among underprivileged groups of students remains unclear.

**Study Aims**

Race, ethnicity, and culture are important predictors that can explain perceptions of school climate (Thapa et al., 2013). Students of different cultures have different perceptions of school, and their academic abilities may also be influenced differently by school climate (Benbenishty et al., 2016). Although this assumption could be best tested in culturally homogenous schools, prior studies used samples of culturally diverse schools or schools with language or ethnic mismatches between teachers and students. The current study sought to account for prior inconsistencies and examine mechanisms by which positive climate is associated with academic achievement among Arabic cultural minority students attending ethnoculturally homogenous schools in Israel. Providing a unique perceptive on these associations, the current investigation deepens our understanding of the complex composition of the many influences on student outcomes, informing more effective responses to the challenges that give rise to unequal opportunities and outcomes for minority status students.

**Theoretical Perspective**

Ecological theory suggests that risk and protective factors operate in different ecological settings, including the peer group, family, school, and neighborhood, to influence an individual’s development (Bronfenbrenner, 1979). The interactions between individuals and others in their immediate environment have the most direct impact on development. As such, the school setting is a central domain (Bowen et al., 2008). Researchers have suggested exploring the socioecological environment in which schools are embedded and the influence of school climate and internal context on student outcomes (Espelage, 2014). The student body, family demographics and characteristics, neighborhood, broader community, culture, and ethnic environment interact with the internal school context (Benbenishty & Astor, 2019). This interaction creates unique circumstances for schools in various social, cultural, religious, and political settings and could change the contribution of positive climate to achievements. Underlying theoretical mechanisms likely reflect the internal (e.g., school climate) and external (e.g., culture) school contexts that influence educational practices and academic success. These mechanisms, however, have been largely unexplored.
Israeli Education System

Israel represents a natural setting to examine educational mechanisms and outcomes in diverse cultures. Prior to its establishment during the British Mandate, a mandatory education system had not been established in Israel. Instead, the different political parties instituted schools affiliated with distinct political streams, maintaining their disparate ideologies, including issues concerning socialism, religiosity, and culture (Israel Archives, 2017). In this historical organizational structure that persisted throughout the years, it was critical to ensure that all subpopulations maintained their curriculum, instruction and textbook language, and culture and general mission such that they coincided with the student population and families, ensuring they can maintain their identities in school. Consequently, all public schools in Israel, except for a very few bilingual schools, are organized around culture and language such that Muslim, Christian, Druze, Bedouin, and Jewish families, either religious or secular, can choose schools for their children based on religious and cultural orientations. SES disparities and significant achievement gaps exist among the different education streams, especially among the Jewish secular and the Arabic Muslim sectors (Endeweld et al., 2019; National Authority for Measurement and Evaluation, 2020).

The unique structure of schools in Israel enables isolation of the influence of culture and ethnic diversity among students and between teachers and students on school climate (Thapa et al., 2013). The experience of an individual student with minority status may vary depending on how many fellow students belong to the same group. For example, shared demographics of teachers and students can enhance teachers’ ability to understand culturally specific behaviors and improve relationships with students and their parents (Osher et al., 2012). Arabic minority students in Israel are also unlikely to experience unfavorable attitudes and prejudice from teachers and fellow students and more likely to maintain their cultural identity in school. Ethnic and cultural similarity among students could also counterbalance the influence of a minority group’s proportionality in school on the type and magnitude of school violence and sense of safety (e.g., Connell et al., 2015; Felix & You, 2011). However, simultaneously maintaining numerous education streams unfolds serious deficits and risks, including unequal exploitation of economic and political resources that preserve disparities and can contribute to social and educational gaps among Jewish and Arabic educational streams in Israel (Arar, 2012).

Using a nationally representative database with school climate and academic variables, this study examined three potential ways ethnic minority students’ school climate perceptions and student and school SES might
explain student- and school-based differences in test score achievement: compensation, mediation, and moderation. Research questions were:

(a) Does school climate compensate for the influence of student background on test scores?
(b) Does school climate mediate the relationship between student SES and test scores?
(c) Does school climate moderate the relationship between student SES and test scores, such that the relationship is more pronounced in schools with less positive climate?

All models were examined separately for fifth- and eighth-grade students at both student and school levels. The rationale for conducting these separate analyses is based on indications of disparities in school experiences between younger and older students, with younger students typically experiencing stronger connectedness, greater engagement, and more positive adult relationships and overall school climate (Lam et al., 2016). Models were also examined at both student and school levels. I used hierarchical linear modeling (HLM), a multilevel approach that accounts for factors within and between schools and students, to examine associations between study variables (Raudenbush & Bryk, 2002).

Methods

General Study Design

This study was based on a secondary analysis of data gathered by Israel’s National Authority for Measurement and Evaluation, which runs a large-scale national education monitoring system, Growth and Efficiency Measures of Schools (GEMS), for fifth- and eighth-grade students. This unique system provides information on both student- and school-level SES, student self-reported school climate perceptions, and academic achievement.

Sample. All schools in the public school system supervised by the Israeli Ministry of Education (MoE) were classified into four clusters; each cluster constituted a nationally representative sample of all schools. I used 2 years (2008–2009) to create a census of half of all Arabic-speaking fifth- and eighth-grade students (data from half of all schools in the country are collected each year). Because private schools are a very small minority of Israeli schools, the sample thus represents most students. The sample featured 21,873 students attending 280 Arabic-language schools. Response rates ranged between 88% and 92%.
Measurements

GEMS includes two main subscales: achievements and school climate. GEMS achievement tests examine the extent to which students gained required knowledge in mathematics, language arts, English as a foreign language, and science and technology. This study focused on mathematics test scores, which are measured on a scale with a mean of 500 and standard deviation of 100 (for further information, see National Authority for Measurement and Evaluation, 2016).

GEMS school climate subscales feature 54 items measuring students’ perceptions of aspects of schools’ social climate. The MoE research team found some items had low reliability in measuring school climate; other items were only asked in 2008 and thus were missing for most of the sample. Therefore, 17 items were omitted. Because the item pool was different than the original pool, the remaining 37 items were subjected to an exploratory principal components factor analysis with varimax factor rotation, yielding a nine-factor solution (eigenvalue > 1) explaining 59.49% of the total variance. A second-order principal components factor analysis with varimax rotation was conducted on the nine factor scores (computed by averaging the standardized items scores for each factor). The second-order analysis yielded three factors (eigenvalue > 1) explaining 59.56% of the total variance. The first factor referred to student–teacher relationships; the second to risky behavior; and the third to school violence.

Positive student–teacher relationship ($\alpha = .852$). This factor featured 19 items referring to seven issues: teacher feedback to promote student proficiency, teacher belief in student ability to succeed, close and caring student-teacher relationships, fair student-teacher relationships, high expectations and academic pressure for students, and school efforts to prevent violence.

Risky peer behavior ($\alpha = .507$). This factor featured six items referring to three issues: proper student behavior in the classroom, vandalism at school, and gangs at school.

School violence ($\alpha = .627$). This factor featured 12 items referring to three issues: student victimization via direct and indirect forms of violence and a perceived lack of protection at school.

SES background. SES was determined according to the Social Deprivation Index, computed by the MoE. The measure represents the relative personal SES of the students’ families in comparison to all students’ families in Israel, based on parental education (40%), periphery neighborhood of residence (20%), income level (20%), and home country and immigration from
low-income countries (20%). The current study used this measure on both the student and school level.

*School-level SES background* represents the mean SES percentiles of all students in a school; the values range from 1 to 10, and higher values indicate higher SES backgrounds.

*Personal student-level SES background* was computed by subtracting the school measure from the student measure. Therefore, the personal SES measure represents the student SES relative to other students in the school.

**Data Analysis**

The first-level variables were student SES, perceptions of school climate, and test scores. The second level was school SES. Three hierarchical linear models predicting mathematics test scores were tested: Model 1 included school SES and student SES; Model 2 included the three school climate factors; and Model 3 included interaction terms between school climate factors and student SES. Linear regressions were used to examine school-only models. Analyses were conducted using HLM (7.0) and SPSS (25.0).

**Results**

**School Variance of Test Scores**

Two fully unconditional, two-level models were developed to examine between- and within-school variance in students test scores. Models indicated a considerable percentage of variance in student scores was between-school variance (27.71% and 19.24% for fifth and eighth grade, respectively). The results suggest that the between-school variance in student scores was significant and large enough to warrant HLM analyses, which involved separate student-level and school-level analyses.

**SES and Test Scores: A School Climate Compensation Hypothesis**

*Student level.* These models tested whether and to what extent students who reported higher positive school climate achieved higher test scores, beyond student and school SES. Model 1 included school and student SES, Model 2 included the three school climate factors (Table 1). The intercept represented average student achievement and the slope represented the strength of the relationship between SES and achievement; a steeper slope (reflected by $b$ coefficients) reflected a stronger relationship. Findings are also presented in Figure 1.
|                      | Fifth Grade (n=12,267) |                      |                      | Eighth Grade (n=9,606) |                      |                      |                      |
|----------------------|------------------------|----------------------|----------------------|------------------------|------------------------|------------------------|------------------------|
|                      | Model 1                | Model 2              | Model 3              | Model 1                | Model 2              | Model 3              |                      |
| b                    | SE                     | b                    | SE                    | b                      | SE                    | b                      | SE                    |
| Intercept            | 518.70***              | 23.98                | 422.33***             | 11.22                  | 421.87***             | 11.21                  | 445.71***             | 12.37                  | 445.07***             | 12.16                  | 445.24***             | 12.21                  |
| School SES           | 8.78**                 | 3.11                 | 8.72**                | 3.12                   | 8.86**                | 3.12                   | 9.04*                 | 3.77                   | 8.91*                 | 3.67                   | 8.86*                 | 3.70                   |
| Student SES          | 15.01***               | 4.04                 | 11.11***              | 0.60                   | 11.48***              | 0.64                   | 12.38***              | 2.36                   | 11.24***              | 0.69                   | 10.76***              | 0.75                   |
| School climate       |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Positive student–    |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| teacher relationship |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Risky peer behavior  |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| School violence      |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Interactions         |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Student SES×positive |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| student–teacher      |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| relationship         |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Student SES×risky    |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| peer behavior        |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Student SES×school   |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| violence             |                        |                      |                       |                        |                        |                        |                       |                        |                        |                        |                        |                        |
| Between-school       | 2,608.62***            | 2,618.88***          | 2,613.05***           | 1,564.79***            | 1,569.34***           | 1,568.99***           |                      |                      |                      |                      |                      |                        |
| variance             | 6,543.82               | 6,240.42             | 6,228.04              | 6,494.77               | 6,218.35              | 6,190.95              |                      |                      |                      |                      |                      |                        |
| Between-school $R^2$ | 3.20%                  | 2.82%                | 3.03%                 | 6.09%                  | 5.82%                 | 5.84%                 |                      |                      |                      |                      |                      |                        |
| Within-school $R^2$  | 6.90%                  | 11.21%               | 11.38%                | 7.10%                  | 11.05%                | 11.44%                |                      |                      |                      |                      |                      |                        |
| Between-school $\Delta R^2$ | —                  | 4.31%               | 0.17%                 | —                      | —                     | 3.95%                 |                      |                      |                      |                      |                      |                        |

Note. HLM = hierarchical linear modeling; ICC = intraclass correlation; SES = socioeconomic status. First-level predictors centered on school mean. *$p < .05$. **$p < .01$. ***$p < .001$. 
The results of Model 1 indicate that student and school SES variables contributed significantly (6.90% and 7.10% for fifth and eighth graders, respectively), suggesting that students with higher personal SES or from schools with higher SES achieved better scores than students with lower personal SES or from schools with lower SES.

The results of Model 2 indicate that school climate factors accounted for 4.31% and 3.95% of test scores variance for fifth and eighth grades, respectively. At both grade levels, all school climate factors significantly contributed to test scores.

School level. All variables were averaged across students within schools. To test the influence of mean school climate, beyond school SES, on average test scores by school, two multiple hierarchical linear regressions were conducted for fifth- and eighth-grade schools. School SES data were entered in Step 1 and the three school climate factors were added in Step 2.

Results indicate that for fifth-grade schools, higher levels of risky peer behavior ($\beta = -0.19, t[183] = -2.07, p = .04$) and school violence ($\beta = -0.39, t[183] = -3.92, p < .001$) were associated with lower mean test scores by school, beyond the contribution of SES. For eighth-grade schools, only risky peer behavior was related to mean test scores ($\beta = -0.27, t[97] = -2.12, p = .04$); riskier peer behavior was associated with lower test scores. These
reports explained 16.9% and 8.0% of variance for fifth- and eighth-grade schools, respectively.

**SES and Test Scores: A School Climate Mediation Hypothesis**

**Student level.** These models tested whether student perceptions of school climate mediated the relationship between student SES and test scores (see Table 1). To test mediation, student SES coefficients in Model 1, which did not include school climate factors, were compared to those in Model 2, which included school climate factors. A significant decrease in student SES effects from Model 1 to Model 2 would indicate school climate mediates the relationship between student SES and test scores. Full mediation would be indicated by significant student SES coefficients in Model 1, nonsignificant coefficients in Model 2, and a significant decrease in coefficients from Model 1 to Model 2. Partial mediation would be indicated by a similar pattern, except that the significant decrease in student SES effects on student achievement would be coupled with a significant SES effect in Model 2 (MacKinnon, 2008). A Sobel test was used to evaluate the significance of decrease in SES effects across models (Sobel, 1982). Results revealed a nonsignificant reduction in the effects of student SES after adding school climate factors for both grades ($p > .05$). Therefore, the mediation hypothesis was not confirmed by the data at the student level.

**School level.** These models tested whether the relationship between school SES and mean test scores by school was mediated by school climate at the school level. Two multiple linear hierarchical regressions tested this hypothesis for fifth- and eighth-grade schools. School SES was entered in Step 1 and school climate factors were added in Step 2; then school SES in Step 1, without school climate factors, was compared to the SES coefficient in Step 2, which included school climate factors.

Results indicate that for fifth-grade schools, school-level SES significantly contributed to school test scores in Step 1 ($\beta = .20$, $t[183] = -2.79$, $p = .006$). However, in Step 2, its contribution was nonsignificant ($\beta = -.06$, $t[183] = -.864$, $p > .05$). A Sobel test revealed a significant reduction in the effects of school SES after adding school climate factors for fifth-grade schools ($p < .001$). Therefore, the mediation hypothesis was confirmed for fifth-grade schools. For eighth-grade schools, SES remained significant in both Step 1 ($\beta = .25$, $t[97] = 2.48$, $p = .015$) and Step 2 ($\beta = .25$, $t[97] = 2.37$, $p = .02$). Therefore, the mediation hypothesis was not confirmed for eighth-grade schools.
SES and Test Scores: A School Climate Moderation Hypothesis

Student level. To test whether student perceptions of school climate moderate the relationship between student SES and test scores, a third model was added to the student-level two-model analyses. Model 3 included interaction terms between school climate factors and student SES. The within-school explained variance of Model 3 did not change considerably compared to Model 2 (Table 1). Model 3 contributed less than 1% among fifth graders (0.17%) and eighth graders (0.39%) of within-school explained variance in student test scores. Thus, associations between student SES and test scores did not change across schools with different climates.

Cross-level interactions. I tested whether the relationship between student SES and test scores decreased in schools with positive climate. I examined whether the slope variance in student SES and test scores was significant. Findings confirmed significant slope variances in student SES and test scores both for fifth-grade ($b = 5.38, p < .001$) and eighth-grade ($b = 4.37, p < .001$) students. These findings justified further examination of interaction effects among student SES, school climate, and test scores.

I used a slopes-as-outcomes model to explore interactions between student- and school-level predictors. This model tested the moderating effect of school-level climate on the relationship between student SES and student test scores. Findings indicate that for fifth-grade students, school-level factors did not moderate the relationship between student SES and test scores. However, for eighth graders, a significant interaction existed between student SES and risky peer behavior ($b = 9.17, p < .01$), manifesting as a decreased student SES effect on test scores (i.e., smaller achievement gap) when risky peer behaviors in the school decreased (Figure 2).

School level. These models tested the moderation effect of school climate on the SES–test scores relationship with SES and school climate at the school level. Because variables were at the school level, simple hierarchical linear regressions were used. School SES and school climate were entered in Step 1 and the interaction terms of school-level climate and school SES were added in Step 2.

Results for fifth-grade schools indicate that school SES and climate interactions explained 4.1% of the variance in test scores ($\Delta F[3, 175] = 3.205; p = .025$). A significant interaction existed between school SES and positive student–teacher relationships, manifesting as a decreased school SES effect on mathematics test scores when positive overall student–teacher relationships in the school increased (Figure 3).

Results for eighth-grade schools revealed a nonsignificant interaction between school SES and climate, indicating that school climate does not
moderate the relationship between school SES and average test scores ($\Delta F[3, 89] = 0.456; p > .05$).

**Discussion**

School and student academic performance depend heavily on student sociodemographic characteristics, namely SES background and ethnocultural affiliation. Schools performing better than expected were stipulated to have positive school climate (Voight et al., 2013); still, researchers have posited contradictory mechanisms by which positive school climate mitigates poor SES background (Berkowitz, Moore et al., 2017). This study examined the influence of school climate on mathematics test scores in a nationally representative sample of Arabic-speaking ethnic minority students attending ethnoculturally homogenous schools in Israel.

**Academic Success across Schools**

The considerable proportion of between-school variance in test scores demonstrates the critical role of students’ school affiliation in determining their
academic performance. Variance in test scores by school affiliation was larger among Arabic-language minority schools, as compared to Hebrew-language schools, in Israel (Berkowitz et al., 2015). The findings demonstrate that students with ethnic minority status and disadvantaged SES backgrounds may be more affected by internal school context than their more privileged Hebrew-language counterparts. These findings support prior empirical work that considered schools as being influenced by outer contexts such as the neighborhood and community and affecting student outcomes through their internal context (Benbenishty & Astor, 2019; Espelage, 2014).

**SES Background and Test Scores**

Schools with higher SES backgrounds had better average test scores compared to those with lower SES. Furthermore, the data revealed within-school inequalities between students with higher and lower SES. In opposition to prior research, explanations related to discrimination or biased perceptions of teachers and peers toward minority-status students and families (e.g., Watkins

![Figure 3. Fifth-grade school mean test scores as a function of school SES at different levels of student-teacher relationships (N = 280).](image)
\& Aber, 2009) could not elucidate within-school academic disparities among Arab minority students in this study who attended ethnoculturally homoge-
nous schools. In fact, Israeli Arab students may feel more welcomed in schools than in Israel’s general society, where political and cultural oppres-
sion is more pronounced. Instead, resource scarcity and poorer family resources that jeopardize students’ development and learning could better explain greater academic success achieved by more affluent students. These findings highlight the need for further exploration of school practices and mechanisms that could moderate within-school disparities among privileged and disadvantaged students.

**Positive Climate and Improved Academic Achievement**

Positive climate compensates for poor SES. Although SES background is central to academic success, the findings show school context can effect-
tively influence academic gains beyond the contributions of SES back-
ground. The findings suggest that schools’ prioritizing safety, positive relationships, cultural tolerance and inclusion, and additional nonacademic goals not only ensures fulfillment of children’s rights to special protection and care, freedom from discrimination, and full extraction of their natural abilities and talent, but also promotes their academic success and equal opportunity for education.

Positive school climate was conducive to academic success among Arabic-speaking students, despite their many social and economic risks. These findings are in accord with prior research evidence indicating that the compensatory nature of positive school climate is relevant for students and schools with lower SES backgrounds (e.g., Crosnoe et al., 2004). Prior research demonstrated that schools with greater inclusion and respect for diversity provide greater support for ethnic minority youths. For example, Adan and Felner (1995) found that minority students had greater academic success when schools were more ecologically congruent with their prior experiences, particularly in values and friendship patterns. Although cul-
tural homogeneity in Israeli schools encourages greater congruence among teachers, students, and their families, the ethnocultural heterogeneity of other school systems, such as in the United States, creates cultural discontinuity and might encourage students from nondominant cultural back-
grounds to assimilate into the school’s dominant culture (Berkowitz, Astor et al., 2017). Thus, schools should encourage positive identity, respect cul-
tural differences, and reduce racial prejudice to increase students’ and par-
ents’ sense of connectedness and engagement with the school and enhance students’ academic prosperity.
The education system must also eliminate discriminatory budgeting and empower ethnocultural minority education staff to lead the designated plan for Arabic affirmative action. Otherwise, separation by ethnic and cultural orientations aggravates the inequality between Arabic and Hebrew language schools, between the center and periphery, and between the rich and less privileged neighborhoods in Israel (Golan-Agnon, 2006). A required change toward equity necessitates just distribution of support and resources for all educational sectors, particularly for populations of lower SES and ethnocultural minorities (Arar & Abu-Nasra, 2019).

In addition to less public investment in Arab education, limited professional job opportunities and future prospects regarding higher education and career underlie the educational achievement gaps between Hebrew- and Arabic-speaking students in Israel (Seginer & Mahajna, 2003). The Arab population in Israel is subjected to discriminatory government policies and deprivation in many life domains and experiences alienation and separation from the Jewish majority and the state of Israel. Such discrimination can have destructive effects on adolescents psychological functioning and development (Brown & Jones, 2004; Fisher et al., 2000). This situation has significant negative implications for Arabic children and adolescents, who may experience reduced motivation to invest in schooling, succeed academically, graduate from school and integrate in the job market, as compared to their Jewish majority counterparts (Abu-Asba et al., 2011; Mazawi, 2003).

Comparison between grade levels revealed school climate contributed more to test scores for elementary school students than middle and high school students. A possible explanation is rooted in more positive school climate experiences among younger compared to older students (Bowen et al., 2008; Thapa et al., 2013). During early adolescence, youths look to nonparental adults for social bonds, yet as they transition into middle school, their teacher–student relationships tend to be less personal (Eccles et al., 1993). This transition includes changes in the school’s physical and organizational structure, resulting in less personal contact, intimacy, and trust among teachers and students (Gehlbach et al., 2012), decreased school engagement, and more negative climate experiences (Way et al., 2007). However, this does not mean that the contribution of positive school climate to academics declines. In fact, older students, particularly those from disadvantaged backgrounds and ethnic minorities, who experienced highly supportive teachers were more likely to report engagement and achieved higher grades (Hopson & Lee, 2011; Hughes & Kwok, 2007).

The school-level compensating model provided additional insight into students’ reports of violence and sense of insecurity at school. Although violence and insecurity were not always significantly associated with
student-level achievement, their contribution to school-level variance in achievement was significant for both grade levels. These findings stress the importance of comprehensive school violence intervention programs that consider violence as a school-level organizational problem. Such whole-school interventions, designed to create positive school environments, demonstrated the best outcomes in terms of preventing school violence (Marachi et al., 2013).

**School climate mediates the association between SES and test scores.** The school climate mediation hypothesis is based on research demonstrating an association between cumulative home and neighborhood risk factors among underprivileged populations and more negative school environments (Crosnoe & Cooper, 2010). Yet modifying school climate to be more supportive could mediate the unwanted effect of poor SES and community and neighborhood stressors, and thus amend academic outcomes. This hypothesis was supported for fifth-grade schools. Findings indicate that the elementary school context makes a difference, even in schools in high-risk neighborhoods, by disrupting negative influences of poor SES on academic achievement.

The school climate mediation mechanism was not confirmed among eighth-grade schools. Academic failure might result from accumulated risk factors across ecological domains over time (Richman et al., 2004). The current findings indicate the importance of investing in school climate at early stages, before increased risk and academic difficulties and gaps solidify.

**School climate moderates the association among SES and test scores.** The third research question tested whether positive school climate could decrease the relationship between SES and test scores. There were no indications that student perceptions of school climate moderated the relationship between student-level SES and test scores. It’s possible that school climate must be extremely supportive to reduce negative effects of poverty and additional risk factors on academic proficiency. Nonetheless, the findings indicate family SES background had a significantly stronger effect than student perceptions of climate. Because school climate seems to have a nonlinear effect on the association between student SES and academics, future studies should identify and study atypically successful schools that perform better than expected academically. Quantitative data could be used to generate ideas from extremely effective schools that maintain a positive climate and high academic achievement despite outside and inside pressures (Astor et al., 2009). Creating case studies of extremely effective and ineffective schools can provide a deeper understanding and more guidelines to school climate improvement, reduce ethnic achievement gaps, and increase social mobility (Berkowitz, Moore et al., 2017).
Regarding school climate at the school level, findings indicate that within-school achievement gaps between peers of different SES decreased in schools with positive climate, especially those with low risky peer behavior. These schools seemed to reduce classroom interruptions and student impudence, and achieve a safe school free of vandalism and gang activity. This safer school environment allowed greater educational equity and access to students of more disadvantaged backgrounds.

Compared to Hebrew-language schools, Arabic schools in Israel exhibit higher rates of risky peer behaviors and violence across most domains (National Authority for Measurement and Evaluation, 2016). This might explain why less risky peer behaviors played a critical role in improving test scores among minority students. A different pattern was previously obtained among Hebrew-language students, who experience fewer risky behaviors and violence at school and whose academic performance depends more on relationship quality with teachers (Berkowitz et al., 2015). Understanding what aspects of school climate are most central to each ethnocultural group is also important for educators striving to enhance students’ academics through improving the social and nonacademic functions of the learning environment.

School-level findings indicated a smaller achievement gap among fifth-grade schools with positive student–teacher relationships. Resources for less advantaged populations with scant means contribute more substantially to their progress, development, and success than advantaged populations in more privileged circumstances (Yongyun, 2012). This might explain why positive school climate decreased the contribution of school SES to school mean test scores in Arabic-language schools but not Hebrew-language schools. The findings highlight the need for interventions that improve climate, especially in schools serving minority populations and individuals living in poverty. Such interventions would be more successful if focused on improving student–teacher relationships in elementary schools.

Study Limitations and Recommendations for Future Research

Despite the large-scale representative sample of students and schools and wide array of school climate and academic achievement variables, some findings and interpretations should be considered with study limitations in mind.

The data were collected at one point and therefore do not inform causal relations and directionality among variables. Despite common recommendations to improve school climate to support academic achievement (Cohen & Geier, 2010), a recent longitudinal study in California found that higher academic performance improved school climate over time, not vice versa (Benbenishty et al., 2016). The authors stipulated that teachers may hold
more positive perceptions of and greater preferences toward academically successful students that lead to more positive relationships relative to failing students, who don’t enjoy such preferable attitudes. An alternative explanation involves school leadership practices and agenda. Case studies of schools with outstanding leaders who made dramatic improvements in their schools (e.g., Astor et al., 2009; Benbenishty & Benbenishty, 2007; Sebring et al., 2006) revealed leadership practices that combine academic and nonacademic goals. Additional research is needed to explore causal associations between school climate and achievement. Studies featuring longitudinal designs and case studies of schools with very high academic achievement or in which students, teachers, and parents report a very positive school climate could create a more solid foundation for deducing causal relationships between climate and academic achievement. Continuous national educational monitoring data could be used to explore causal associations and identify schools that have significantly improved academic achievement or social climate with in-depth qualitative research (Cohen et al., 2009).

Findings of this study provide a broader conceptual perspective on school climate and its contribution to academic achievement among distinct ethnocultural groups of students. Further research is needed to explore additional external influences that interact with the internal school context and might change the contribution of school climate to academic achievement. For example, school climate’s contribution to achievement could be greater in schools subjected to broad educational policies that emphasize and prioritize both school climate and academic achievement, as opposed to narrower policies that merely emphasize academic performance. Other external influences include ethnic identity, cultural norms, sociopolitical oppression, local and global terror threats, trauma, immigration and refugee experiences, conflicts, and war. Additional cross-cultural research would expand the theoretical framework to incorporate external contexts relevant to educational inequality.

This study focused on school climate—a malleable factor that educators and schools can manipulate to advance students’ outcomes, although factors that put students of minority status at a disadvantage are unachievable for schools and the education system alone to manipulate (Voight et al., 2013). Researchers have acknowledged the spillover of non-school-related risk factors at numerous ecologies surrounding schools catering to low-SES and vulnerable populations that influence student outcomes, at the neighborhood, community, culture, and policy levels (e.g., Currie, 2009; Duncan & Murnane, 2011; Rothstein, 2004). Thus, in addition to the inner school context, research focused on the achievement gap must adopt an interdisciplinary approach to examine how health, nutrition, social problems, economic disadvantage, uneven distribution of resources, structural inequality, oppression, and
additional social forces make poor and racial minority students less successful in school (Ladd, 2012).

**Practice and Policy Implications**

Academic success is considered the most central and important goal for schools. Monitoring of academic achievement is often used to impose sanctions on school leaders, staff members, and students who don’t demonstrate academic performance growth. This creates a high-pressure climate in which relationships, safety, socioemotional learning, development of social skills, democratic education, and other nonacademic components of learning are less attractive to schools concerned with content-based education. Positive climate is not competing but rather is integrated with the academic mission of schools and improvement efforts (Benbenishty et al., 2016; Espelage et al., 2013; Lacey & Cornell, 2013; McCoy et al., 2013). This conceptual progress toward integration of both climate and academics into the school mission is data driven and should be anchored in educational policy that prioritize both aspects.

A broader accountability program that includes academic, social, emotional, and behavioral components along with school climate questions would (a) send a clear and critical signal to the educational system that collecting accurate information to address school climate and academic success is a priority and (b) create a national norm whereby both climate and success in schools become important to the principal, staff, parents, and community (Benbenishty et al., 2016).

Israel is one of few countries to assess both school climate and academic achievement in its national monitoring system. The mandatory system identifies schools that need support in both areas and informs national policies and assistance for schools with specific climate or academic issues. New laws that call on schools to improve their socioemotional and affective qualities (e.g., the United States’ Every Student Succeeds Act, 2015) offer opportunities for school practitioners and policy advocates to consider goal setting that involve nonacademic factors and positive school climate.

Although findings of the current study show that schools can make a difference in reducing the achievement gap, improving the school climate is only part of the required solution to helping schools advance minority status students’ attainment (Voight et al., 2013). A comprehensive social, economic, and educational approach needs to be developed and implemented to progress toward fully addressing the multifaceted disadvantages experienced by minority and low-SES students worldwide and Arab minority students in Israel in particular.
Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

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