

The Association Between Teaching Practices and Students' Perceptions of Being in a Classroom Community of Engaged Learners

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Abstract

Past research suggests that a sense of belonging to a community is developmentally important for adolescents and affects their engagement in school, especially during the transition to high school. However, little research examines the teaching practices that simultaneously foster classroom belonging and behavioral engagement to create a classroom community of engaged learners. This study investigates the association between specific teaching practices (i.e., lesson organization and structure, academic support, and student–teacher trust) related to students perceiving they are in a classroom community of engaged learners. Hierarchical linear modeling was used to analyze survey responses of 16,137 ninth grade students in a large urban school district. Results show a positive relationship between the way a teacher organizes their classroom lessons and activities, the level of academic support, and student–teacher trust towards students perceiving they are in a community of engaged learners. These findings differ across student characteristics (e.g., race, sex, living in a high poverty neighborhood, special education status, grades). The findings suggest that teaching practices that are generally considered by educators within the profession as good instructional practices may also be key for creating a community of engaged learners.

Key Words: classroom belonging, behavioral engagement, teaching practices, community of engaged learners, high school students, teachers

Introduction

Belonging to a learning community has been identified as an important and malleable psychological mindset that is crucial for students' academic performance. However, researchers and educators continue to question how to develop it within a school setting (Farrington et al., 2012; St-Amand et al., 2017; Tillery et al., 2013). Community has been defined in various ways, but scholars acknowledge that community only exists when members experience feelings of belonging, trust, and safety (Block, 2018; Furman, 1998; McMillan & Chavis, 1986; Osterman, 2000; Strayhorn, 2018). Research demonstrates that belonging is a fundamental psychological need (Baumeister & Leary, 1995; Maslow, 1970; Osterman, 2000), especially for adolescents. Adolescence comprises a critical period of cognitive, psychosocial, and emotional transformations (Hines 2007; Kreniske et al., 2020; Martinez et al., 2011). Thus, adolescents need more time with their peers, as their friendships play a critical role in their identity development and social support (Quinn & Oldmeadow, 2013; Steinberg & Morris, 2001).

Belonging is likewise associated with students' engagement in the classroom. Research has shown a positive relationship between elementary and middle school students' academic engagement and their sense of belonging (Battistich et al., 1995; Craggs & Kelly, 2018; Hughes & Cao, 2018; Osterman, 2000; Pendergast et al., 2018; Solomon et al., 1996). Unfortunately, as students move through secondary school, school engagement declines (Eccles et al., 2018; Martin & Collie, 2019; Wang & Eccles, 2012; Wang & Holcombe, 2010) along with their sense of belonging (Anderman, 2003; Anderman & Anderman, 1999; Gillen-O'Neel, 2021; Ryan & Patrick, 2001). Even though less research focuses on the transition from middle school to high school, some say this is when belonging varies (Benner & Graham, 2007, 2009), while others indicate it is a time when it declines the most (Liu & Lu, 2011; Wang & Eccles, 2012; Witherspoon & Ennett, 2011). High schools tend to have larger classrooms that are more heterogeneous and impersonal, with increased expectation for academic performance but less support than their middle school environment (Benner & Graham, 2007; Hanewald, 2013; Sánchez et al. 2005; Simmons & Blyth, 2017). High school educators recognize that fostering community and belonging affects students' educational trajectory, such as graduating from high school with a GPA that will allow them to enter either postsecondary education and/or work (Allen et al., 2018; Waters et al., 2010). But high school educators face challenges to do so, including being overworked and feeling pressure to focus on academic achievement rather than social-emotional needs (Kraft et al., 2015; Osterman, 2000). This issue is particularly salient in struggling urban school districts, where many students have

low test scores and schools are placed on probation and at risk of closure (Kraft et al., 2015; Sánchez et al., 2005).

Literature Review

Community, Teaching Practices, and High School Students

A sense of community has long been recognized as an important construct in research. Seymour Sarason (1974) focused on the psychological sense of community and defined it as “the perception of similarity to others, an acknowledged interdependence by giving to or doing for others what one expects from them, [and] the feeling that one is part of a larger, dependable, and stable structure” (p. 157). Expanding upon this definition, Glynn (1981) identified several central components required for a sense of community, including homogeneity, interdependence, shared responsibility, and common goals and values. McMillan and Chavis (1986) reviewed the early community literature and defined a general sense of community as “a feeling that members have a belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (p. 9). Rovai (2002) identified school community as a two-dimensional framework. Drawing from the work of McMillan and Chavis (1986), the first dimension of a social community reflects students’ senses of attachment, trust, safety, interdependence, and belonging (Rovai, 2002). The second dimension, a learning community, was developed from the work of Glynn (1981) and Royal and Rossi (1997) and is the degree to which students feel there is a set of group norms and values to which their group membership meets their educational goals and expectations (Rovai, 2002).

Conceptualization of community has since expanded to include additional elements. Wenger (2010) discusses a conceptual framework with three important elements for building a community. The first element includes defining what community means for its members, how to contribute to it, and how to hold one another accountable to it. The second consists of developing norms and routines based on the member’s interactions and transactions with one another. The final element of community is where all members share and have access to the resources within the community (Wenger, 2010). The resources may include necessities, like money, food, shelter, or clothing, but they could also entail things like knowledge, a common language, or routines. The resources needed in a learning community, like a high school classroom, tend to focus more on developing a common language, a shared knowledge, and established classroom norms and routines. The teacher is paramount in helping the learning community to obtain and sustain these resources.

Educational trends have supported that to improve academic outcomes it is important to attend to students' social and emotional needs (Velasquez et al., 2013) and that when K–12 educators adopt caring pedagogies their students have better learning outcomes (Goldstein & Lake, 2000; Hayes, 2003; Keyes, 2019; McNamee et al., 2007; Ritchie & Rigano, 2002; Rogers & Webb, 1991; Watson et al., 2003; Wentzel, 1997). Positive teacher–student relationships are considered one of the most salient school-based relationships (Booker, 2021; El Zaatari & Ibrahim, 2021; Juvonen, 2007; Keyes, 2019; Košir & Tement, 2014; Lee, 2012). Research shows that the role of the teachers is critical for promoting students' psychological sense of belonging and community (Allen et al., 2021; Ellerbrock et al., 2014; El Zaatari & Ibrahim, 2021; Juvonen, 2007). When students have a sense of belonging within a classroom community, it supports them to value the tasks of the class while also fostering feelings of competence and self-efficacy regarding those tasks to promote their academic achievement (Dewsbury & Brame, 2019; Zumbunn et al., 2014). For example, when teachers communicate with care and respond in a timely way to students' learning needs, there is an increase in compliance with the classroom norms and the expected classroom behaviors outlined by the teacher (Ellerbrock et al., 2014; Juvonen, 2007; Keyes, 2019; Kiefer et al., 2015). Several empirical studies examine the association between teaching practices and belongingness at the college level; few investigate what is happening in high school (Barron & Kinney, 2021; Freeman et al., 2007; Silver Wolf et al., 2017; Strayhorn, 2018; Zumbunn et al., 2014).

An essential component of an effective learning environment includes inclusive and supportive teaching practices which leverage the power of a classroom community (Dewsbury & Brame, 2019; Freeman et al., 2007; Johnson, 2009; Keyes, 2019). The classroom climate is shaped by quality teacher–student and student–student relationships to reflect warmth and respect for all members, which are vital to promoting a classroom community because they signal that everyone's contributions are important (Dewsbury & Brame, 2019; Johnson, 2009). In a study by Chiu et al. (2016) they examined survey and test data from 41 countries using multilevel analysis and found that when adolescents perceived a strong relationship with their teachers, had consistent teacher support, or the classroom climate was highly structured, students had a greater positive sense of belonging at school. These findings are consistent with previous research documenting that when teachers employ supportive, meaningful, and caring teaching practices in the classroom, there is an increase in student motivation, satisfaction with school, and academic achievement (Birch & Ladd, 1998; Goodenow, 1993; Johnson, 2009; Keyes, 2019; Klem & Connell, 2004; Murray & Murray, 2004). Similarly, other researchers have shown when

teachers and students have positive interactions with one another, it affects students' emotional, behavioral, and cognitive engagement (Darling-Hammond et al., 2019; Fredricks et al., 2004; Furlong et al., 2003; Keyes, 2019). When teachers create classrooms that are effectively managed and have clearly organized lessons, along with appropriate levels of academic support, students are more likely to engage (Chiu et al., 2016; Corso et al., 2013; Ellerbrock et al., 2014; Juvonen, 2007; Keyes, 2019; Pianta et al., 2012; Reyes et al., 2012). One benefit of these teaching practices is that most high school teachers are already implementing many of them in their classrooms. What remains unclear is if they also contribute to student perceptions of being in a classroom community of engaged learners.

Current Study

In acknowledgement of the interconnection between community, engagement, and belonging, a measure was developed using high school student interviews to capture the aspects of community that promote their sense of belonging and behavioral engagement in their ninth grade classrooms (Keyes, 2019). The measure, Community of Engaged Learners, is used in the current study to test its association to teaching practices (e.g., teacher support, lesson organization) that are typically implementing in high school classrooms. We hypothesize that: (1) students' reports of specific teacher practices will be positively associated with students' perception of being in a community of engaged learners; and (2) students' reports of being in a community of engaged learners will vary by sex, race/ethnicity, neighborhood socioeconomics, Individualized Education Plan (IEP) status, and GPA.

Methods

Data and Sample

This study draws data from a districtwide survey administered to elementary, middle, and high school students across a large urban school district and from administrative data linked to student responses. In 2014–15, Chicago Public Schools (CPS) had 396,683 students (preK–12) in the district, with 183 high schools (9–12) and 30,366 ninth grade student (CPS, 2021a). The racial breakdown districtwide was reported as White (9.3%), Black (40.1%), Native American/Alaskan (0.0%), Hispanic (45.7%), multiracial (1.1%), Asian (3.5%), Hawaiian/Pacific Islander (0.1%), and unknown (0.8%; CPS, 2021a). During the same school year, 15.6% of ninth grade students were receiving special education services, 8.91% were bilingual, and 86.48% were classified as being economically disadvantaged (CPS, 2021a).

The *My Voice, My School* survey is administered in partnership with the University of Chicago and CPS. The survey results are publicly available and are used as an accountability tool for school improvement as well as a research tool. The present study used a subsample of ninth grade students ($n = 16,137$) from 103 schools. Students were randomly selected to take one of two versions of the survey, with one version including the Community of Engaged Learners measure (described below) and one without the Community of Engaged Learners measure. The survey was given in the fall semester of 2014, and administrative data was collected at the end of the 2014–15 academic year. The Institutional Review Board (IRB) determined this study exempt because the study used secondary and deidentified data.

Measures

Measures were drawn from existing questions from the *My Voice, My School* student surveys and school administrative data. The Community of Engaged Learners measure was developed from qualitative interviews with ninth grades students in a Chicago public high school (Keyes, 2019). Students were asked questions about factors that influence their behaviors when they are in classrooms where they have a sense of belonging and are highly engaged and when they do not (Keyes, 2019). The other survey measures (i.e., lesson organization and structure, academic support, teacher–student trust, school-level SES) were developed by University of Chicago Consortium on School Research and have been used extensively to study CPS (2021b; see Appendix for full list of survey measures). These items have been validated and used for several decades with public school students and have demonstrated adequate reliability and separation in the large samples (psychometric properties for all survey measures are available upon request). The psychometrics of all survey measures were tested using Rasch analysis using the Winsteps software program (Linacre, 2016). School administrative data included student background information such as sex, grade, free- or reduced-price lunch status, special education status, course grades, and neighborhood poverty.

Wenger's (2010) elements for building community were considered when creating the Community for Engaged Learners measure as well as in the inclusion of lesson organization and structure, academic support, teacher–student trust, and school-level SES. For example, Wenger's (2010) first element indicates that community is built when it is clear what community means and how to contribute to it and hold one another accountable. This element can be seen in the first two questions of the Community of Engaged Learners measure that ask about class participation and feeling one's true self, which is how students can contribute and hold one another accountable to the classroom community.

Wenger (2010) points to community norms and routines which can be found in the question asking students about making mistakes and in the lesson organization and structure measure. Wenger's (2010) last element of community is where all students share and have access to resources within the community. In a high school classroom this may be academic support, feedback, clear instructions, trust, respect, and feeling successful.

Student-Level Measures

Community of Engaged Learners. Drawing directly from the study by Keyes (2019) and using Wegner's (2010) conceptualization of community, there are five items that ask students to rate the extent to which they: (1) are interested in participating in class discussions/activities?; (2) feel comfortable being their "true self"?; (3) perceive there is agreement within the class that making mistakes is needed to learn the material?; (4) feel successful when doing the work for this class?; and (5) perceive they receive enough "step-by-step" instruction and support to do the work in this class? (1 = Not at all, 2 = A little, 3 = Somewhat, 4 = Mostly, and 5 = Completely).

Lesson Organization and Structure. A four-item measure asked students to report the organization and structure of the class routines and activities, such as "It's clear to me what I need to do to get a good grade." Items were scored on a scale of 1 = Strongly disagree to 4 = Strongly agree. A complete list of the survey items used for this study are found in the Appendix.

Academic Support. A five-item measure asked students the extent to which they agree with statements such as, "The teacher for this class notices if I have trouble learning something" (1 = Strongly disagree to 4 = Strongly agree scale).

Covariates. Several covariates were extracted from administrative data, including indicator variables for racial/ethnic identities, males, IEP (0 = no, 1 = yes), and for GPA letter grades (for each A, B, C, D, F: 0 = no, 1 = yes). These were included in analyses at the student level.

School-Level Measures

School-Level Socioeconomic Status. Additionally, several covariates were included at the school level. This includes an indicator variable for whether the school was in a high-poverty neighborhood (0 = no, 1 = yes), drawn from school administrative records. This variable has been found to be more sensitive than the free and reduced lunch variable (Ehrlich et al., 2014).

Teacher–Student Trust. This five-item measure asked students how much they agree with statements such as "I feel safe and comfortable with my teachers at this school." Because the survey question is about teacher–student trust within the school, it was aggregated to the school level indicating a trusting school climate (1 = Strongly disagree to 4 = Strongly agree scale).

Analytic Approach

To test the study hypotheses, hierarchical linear modeling (HLM) was used to accommodate the multilevel data (Raudenbush & Bryk, 2002; Woltman et al., 2012) and the multiple parameters of the survey measures produced from Rasch analysis (Luppescu, 2013). Rasch analysis was applied to the Community of Engaged Learners, academic support, lesson organization and structure, and teacher–student trust measures. Rasch analysis of survey items produces two psychometrics: a person-level score and an estimation of measurement error; analysis of these two metrics can be handled using HLM (Luppescu, 2013). These items are standardized to have a mean of 0.0 and SD of 1.0; slight deviations from this are possible and expected, given this study uses a subsample of a larger school district population.

Four hierarchical linear models were run using the HLM7 program (Raudenbush et al., 2011): (1) an unconditional model with only a Level 1 measurement model, as described above; (2) a two-level model with Level 1 measurement model plus classroom-level teacher practice variables at Level 2; (3) a three-level model including Level 1 measurement model, Level 2 teacher practices, and school-level SES and school-level teacher–student trust at Level 3; and (4) a three-level model that includes all measures from model 3 and all student- and school-level covariates.

The interclass correlation coefficient (ICC) was computed using the covariance estimates within the unconditional means model (see Table 2, Model 1 in the Results section), which gives the proportion of the total variance that occurs between schools. Previous research shows that values between .05 and .20 are common in cross-sectional HLM applications in social science research (Muthén, 1991, 1994; Muthén & Satorra, 1989; Spybrook et al., 2006). Roberts (2007) suggests that ICC should be an initial indicator, but small values should not immediately rule out the use of HLM. To assess model fit, the differences in deviance statistics between the models were assessed and chi-square statistics and pseudo values were computed (Anderson, 2012). Lastly, the results were compared to the results of the fixed effects with robust standard errors to rule out issues with normality, homoscedasticity, or multicollinearity (Raudenbush & Bryk, 2002).

Survey item-level missing data was handled using Rasch analysis, which will generate individual scores using the remaining survey items. Missing data on other items was less than 5% and was handled using list-wise deletion (Raudenbush & Bryk, 2002).

Results

Descriptive Analysis

Descriptive statistics for the analytic sample ($N = 16,137$) appear in Table 1. The sample was primarily composed of youth of color, and the gender split was 51% females and 49% males. Most students (85.8%) in this sample qualified for free or reduced lunch. The racial demographics and students that qualify free or reduced lunch within the sample are consistent with the entire school district.

Table 1. Descriptive Statistics of Study Variables

Student-Level Variables	Mean (SE) or %
Race/Ethnicity	
Black	33.77%
Latino	49.40%
White	9.92%
Asian	4.29%
Native American	0.33%
Multiracial	1.20%
Pacific Islander/Hawaiian	0.14%
Unknown	0.94%
Male	48.32%
High Poverty	14.39%
Special Education	12.33%
GPA	2.63 (0.94)
A	14.83%
B	38.25%
C	30.37%
D	11.08%
F	5.46%
Teacher Practices	
Lesson Organization and Structure (standardized)	0.14 (0.13)
Academic Support (standardized)	0.00 (1.00)
School-Level Covariates	
Social Economic Status Composite	0.14 (0.13)
Teacher-Student Trust (standardized)	0.00 (1.00)

Rasch Analysis

Overall, the Rasch analyses indicated strong psychometric properties for the measure of Community of Engaged Learners as well as the specific items. In Table 2, the infit and outfit statistics for all individual items of Community of Engaged Learners are shown as acceptable. Table 3 has the Rasch person reliability and separation statistics for the predictor variables. Table 4 shows a correlation matrix between study variables and suggest no multicollinearity.

Table 2. Psychometric Properties of Community of Engaged Learners from Rasch Analysis

Mean (SE)	0.0 (1.00)	
Separation:	2.82	
Reliability:	0.89	
Item-Specific Parameters	Infit	Outfit
(1) Are you interested in participating in class discussions/activities?	0.86	0.81
(2) Do you feel comfortable being your “true self”?	0.99	0.86
(3) Is there agreement within the class that you have to make mistakes in order to learn the material?	0.85	0.81
(4) Do you feel successful when doing the work for this class?	0.69	0.63
(5) Do you receive enough step-by-step support to do the work in this class?	0.81	0.73

Table 3. Rasch Person Reliability & Separation Statistics for Predictor Variables

Measure	Person Reliability	Separation
Lesson Organization and Structure	0.40	0.81
Academic Support	0.22	0.52
Teacher-Student Trust	0.85	2.38

Hierarchical Linear Modeling

Results from HLM models are shown in Tables 5 and 6. Table 5 lists the associations of student-level controls with the Community of Engaged Learners measure. Table 6 displays regression coefficients, variance components, model fit statistics, and the ICC. The ICC of the unconditional means model (ICC = 0.076) indicates a small proportion of the total variance that occurs between schools. Importantly, the unconditional model results did show a very small and statistically significant variance in the school-level intercept, suggesting that a student’s perception that they were in a community of engaged learners significantly varied across schools (< .001).

Table 4. Correlation Matrix for Major Study Variables

		1.	2.	3.	4.	5.
1.	Community of Engaged Learners	--	--	--	--	--
2.	Lesson Organization	0.54***	--	--	--	--
3.	Academic Support	0.54***	0.65***	--	--	--
4.	Teacher Trust	0.10***	0.14***	0.13***	0.11***	--

Note. *** $p < 0.001$.

Table 5. Associations of Student-Level Controls with Community of Engaged Learners

	Mean	<i>p</i> -value
White	-0.30	0.002
Native	-0.45	0.075
Latino	-0.53	<0.001
Multiracial	-0.58	0.004
Asian	-0.69	<0.001
Pacific Islander	-0.23	0.592
Male	0.25	<0.001
High Poverty	0.09	0.094
Special Education	-0.05	0.431

When comparing the intercept for unconditional model (-0.509, $p < 0.001$) to the final Model 4 with all covariates and school level variables (-0.537, $p < 0.001$), the variation is limited and contribution to the effect sizes was small, suggesting limited explanatory power to the covariates. To measure the magnitude of the variation among schools in their mean perception of being in a classroom community of engaged learners, the plausible values were calculated and ranged from -0.641 to -0.377. The reliability estimate for this model was 0.306. The Level 2 residual was not significant of students perceiving they are in a community of engaged learners within a school For each model, the fixed effects and fixed effects with robust standard errors were similar, suggesting no severe violations of the assumptions (results not shown).

Table 6. Regression Coefficients on Major Study Variable, Variance Components and Model Fit Statistics for Hierarchical Linear Models

Parameters	Model 1	Model 2	Model 3	Model 4
Regression Coefficients (Fixed effects)				
<i>Student-Level</i>				
Intercept	-0.51***	-0.55***	0.56***	-0.54***
Lesson Organization and Structure		0.03*	0.03*	0.04*
Academic Support		0.06***	0.06***	0.05***
<i>School-Level</i>				
Student-Teacher Trust			-0.09*	-0.03
Variance Components (Random effects)				
Residual (σ^2)	0.06	0.08	0.08	0.08
School-Level Intercept	0.005***	0.004***	0.003***	0.002
Random L1 Reliability Estimate	0.05	0.06	0.06	0.06
Random L2 Reliability Estimate	0.31	0.27	0.25	0.14
Model Summary and Fit				
Deviance statistic	41819.096	41695.911	41690.393	41622.237
Number of estimated parameters	3	5	7	21
χ^2 statistic	198.73558	76.50772	70.98919	Full Model
Degrees of freedom	18	17	15	—
<i>p</i> -value	<0.001	<0.001	<0.001	

Notes. * $p < .05$, ** $p < .01$, *** $p < .001$; regression coefficients for covariates are available from the authors upon request.

Teacher Practices

Teacher practices had a significant but small effect on a student's perception of being in a community of engaged learners. Therefore, teachers who had their lessons organized and structured well had an effect of students' perceiving they were in a community of engaged learners ($\beta = 0.035$, $p < 0.05$). As expected, teachers who provided academic support to students had a positive association to students' perception of being in a community of engaged learners ($\beta = 0.055$, $p < 0.001$), but it was much smaller than expected.

Student Characteristics and Covariates

Table 5 shows the associations between the Community of Engaged Learners measure and student characteristics with and without other study variables, respectively. Interestingly, several trends appeared that were inconsistent with our hypotheses. Results suggest that students from all racial groups had a lower sense of being in a community of engaged learners compared to Black students. For example, Latino students, which are the largest racial group (49.4%) in the school district ($\beta = -0.14, p < 0.001$) and Asian students (4.29%) were less likely to feel they are in a community of engaged learners ($\beta = -0.135, p < .01$) than Black students (33.77%). Counter to our hypothesis, male students also have a higher perception ($\beta = 0.078, p < 0.001$) of being in a community of engaged learners than females. Neither living in a high poverty neighborhood nor school-level SES composite was associated with the Community of Engaged Learners measure in HLM model 4. Contrary to our hypotheses, students with a special education status have a greater ($\beta = 0.06, p < 0.05$) sense of being in a community of engaged learners, and their school-level teacher–student trust numbers were not statistically significant. Lastly, students with an A average GPA had a slightly greater ($\beta = 0.055, p < 0.01$) perception of being in a community of engaged learners as compared to B students, though there were no other significant differences from B students to those with a GPA of C or lower.

Discussion

There is an ever-increasing need for K–12 educators to better understand how to construct classroom communities that engage students, especially because students are not interacting in the physical classroom the same way as before the 2020 global COVID-19 pandemic (McCartin, 2020). Although the literature has highlighted the importance of promoting community in classrooms and schools (Farmer et al., 2019; Fredricks et al., 2004; Goodenow, 1992; Osterman, 2000), few studies have examined how specific teacher practices may contribute to a classroom learning community.

While this study examined specific teaching practices for in-person classrooms and their relationship to how high school students feel and behave within a classroom learning community, many of these teaching practices might be generalized to an online classroom setting as well. The results from this study found that there was a small significant association with the Community of Engaged Learners measure. Consistent with the academic support literature (e.g., Klem & Connell, 2004; Libbey, 2004; Osterman, 2000) the HLM analysis suggests that academic support is an important teacher practice

for students' perception that they are in a classroom learning community. Academic support is providing clear instruction while also equipping students with the necessary skills to accomplish the designated tasks independently and meet the learning goals and class expectations (Deci et al., 1981; Ghaith, 2002; Jang et al., 2010). Researchers have found that academic support affects student's psychological sense of belonging (Allen et al., 2018; Osterman, 2010). When positive teacher–student relationships are developed, the teacher often gains knowledge about their students that help them to anticipate the academic (and sometimes psychological and social) needs of their students (Keyes, 2019). Engaging instruction along with autonomy-supportive teaching promotes students' tendency to engage in learning because they value what they are learning or find it interesting (Certo et al., 2003; Roth et al., 2007; Wentzel et al., 2018).

Likewise, teachers who effectively organized and structured their lessons contributed to students' perception of being in a community of engaged learners. The small positive effect between teacher practices and students' perception of being in a community of engaged learners is evidence that what teachers do in the class are important for promoting community. For instance, when the class lessons and activities are clearly structured, they help students to feel a sense of control, autonomy, and competence over their own learning (Deci & Ryan, 2002; Guthrie & Davis, 2003; Reeve & Jang, 2006; Reeve & Shin, 2020; Skinner et al., 2008), encourage higher order thinking (Singh et al., 2020; Zohar & Dori, 2003), and integrate prior knowledge and concepts (Emmer & Stough, 2001; Kwok, 2021; Stough et al., 2015). A teacher's knowledge and use of various instructional learning methods are critical to maximize student engagement (Ibrahim & El Zaatari, 2020; Reyes et al., 2012). However, additional research is still needed to explore the significance of other classroom factors, such as connection or conflict with peers, positive or negative attitudes towards course subjects, time of day, and teacher characteristics that may affect high school students' feeling a sense of community within their classrooms.

Perhaps unsurprisingly, school-level SES was unrelated to students' perception about being in a community of engaged learners. One explanation for this finding could be that, while students bring their outside of school experiences into the classrooms, teachers can promote belonging and build community in their classrooms regardless of the economic conditions of students' neighborhoods or homes. Another possible explanation for no association between the SES composite and the Community of Engaged Learners measure may be related to how low SES status affects most students in the study, and therefore does not emerge as a contributing factor. A Turkish study examined the social contexts of schools using structural equation modeling to identify the social

and contextual factors within Turkish schools to understand which are instrumental to enhance students' sense of belonging (Cemalcilar, 2010). The model tested students' satisfaction with their social relationships in the school (student–teacher, student–administration, student–student) and their satisfaction with the school environment (e.g., physical features, supporting resources, perceived violence), finding that students attending low SES Turkish schools are accustomed to insecurity in their environment, both in and out of school, and for these students their neighborhood environment may not be considerably different from their school environment (Cemalcilar, 2010). These findings may help to explain why the SES composite at the school level used in this study did not contribute to students feeling they were or were not in a community of engaged learners.

Previous research has found that teacher–student trust is an important factor because it affects the climate of the classroom and benefits the quality of social interactions (Russel et al., 2016). Teacher–student trust also influences positive student behaviors and helps students to feel more comfortable asking questions and expressing unpopular opinions (Jennings & Greenberg, 2009; Lamborn et al., 1992; Russel et al., 2016; Watkins, 2005). However, our findings suggest that when teacher–student trust is measured at the school level, it is not possible to predict students' experiences in the classroom; teacher–student trust was not associated with a community of engaged learners. Lastly, it is important to highlight that the statistically significant variance in the school-level intercept suggests that students' perceptions that they were in a community of engaged learners significantly varied across schools, indicating that school-level factors are important for creating a community of engaged learners and need to be tested in future research.

Student Characteristics

The findings raise important questions about differences among students—specifically, by their race/ethnicity, sex, special education status, and SES. Counter to hypotheses, Black students reported the highest levels on the Community of Engaged Learners measure, Latino/as and Asian students had the lowest rates, and White students reported rates almost as low as Latino/as and Asians. Some studies have hypothesized that racial minority students would report lower classroom belonging due to the negative academic stereotypes linked to belonging to different racial groups (Garcia-Reid, 2007; Goodenow & Grady, 1993; Ibañez et al., 2004), while others find that racial/ethnic minority students do not have lower school belonging (Bennett & Sani, 2003; Booker, 2006; Goodenow, 1993; Voelkl, 1997). The mixed findings across studies may reflect varied school and community demographics or characteristics.

The complex nature of racial and ethnic identities and the negative stereotypes associated with different groups means school and classroom belonging requires different meanings for different groups (Murphy & Zirkel, 2015; Osterman et al., 2000, 2010). In this study's school district, Asian (3.9%) and White (9.9%) students are underrepresented, which may negatively affect their sense of belonging, engagement, and the Community of Engaged Learners results. Black and Latino/a students are the majority, and the schools they attend tend to be racially and socioeconomically segregated from others in the school district. Although not ideal, this segregation into majority Black schools may be an important factor for creating a racial and/or cultural sense of community that positively contributes to how Black students perceive the sense of belonging and engagement in their classrooms. For high schools with majority Latino/as students, this effect may be blunted due to language barriers for some Latino/as students and their families in schools where teachers are primarily White and English-only speaking (Loveland, 2018). Also, the percentage of Latino/as students that are undocumented in this school district is empirically unknown; however, it is understood that they exist in greater numbers than expected. Despite legislative efforts to provide a pathway to citizenship, being undocumented increases concerns and fear about being deported. "Without access to formal citizenship to assert their rights, their claims to belonging, grounded in their cultural citizenship, are shaky" (Gonzales et al., 2015, p. 337). The unique challenges faced by undocumented students can decrease their sense of belonging and community in school because the lessons they learn in school about meritocracy and democratic participation are in conflict with their lived experiences (Gonzales et al., 2015). Lastly, the concerns and fears about deportation may also be prevalent among documented students but who have family and friends who are not and are still under threat (Rivera, 2016).

Inconsistent with our hypothesis, findings show that male students were more likely to perceive being in a community of engaged learners than female students. Bonny et al. (2000) conducted a study about disconnected seventh–twelfth graders in eight public schools with Grade 9 as the median grade level. They found that boys reported feeling more connected to school than girls did (Bonny et al., 2000). This finding is contrary to some research that show females adhere more consistently to teacher's behavioral expectations and are thought to have a stronger sense of belonging and classroom community than their male counterparts (Anderman, 2002; Banse et al., 2010; Hughes et al., 2006; Kenny & Bledsoe, 2005; Voelkl, 1997). A longitudinal study by Gilen-O'Neel and Fuligni (2013) indicated that ninth grade girls' belonging was higher than boys; however, over the course of their high school careers, girls' belonging declined, but boys remained stable. In a recent meta-analysis, sex

was only weakly associated with school belonging overall, but girls tended to feel a greater sense of belonging than boys (Allen et al., 2018). Future research should consider ways to address the variation of students from different sexes perceiving they are in a community of engaged learners as well as their differing confidence levels in school.

Research finds that students attending low-income schools tend to report feeling less connected to their teachers and to school in general (Battistich et al., 1995; Olsson, 2009). In a meta-analysis, Korpershoek et al. (2020) found lower belonging and educational ambitions among lower SES students. The neighborhood schools that students attend is closely tied to their family SES. Whereas, the family SES has been found to predict students' sense of belonging in school with small effect sizes (Ma, 2003). Interestingly, our study measured poverty at both the school level and the student level, and we found poverty did not impact students' perceptions of being in a classroom community of engaged learners. One reason may be because over 80% of the students (K–12) in the urban school district are considered economically disadvantaged (CPS, 2021a). Disentangling race/ethnicity, neighborhood, and high poverty schools is problematic in our understanding students' sense of belonging to school and its association to fostering a learning community of engaged learners.

Also contrary to the hypothesis, students with a special education designation had a higher perception of being in a classroom community. This is counter to research findings that students with learning disabilities are less accepted when compared to their non-disabled peers (Frederickson & Furnham, 2004; Sale & Carey, 1995). Some students with disabilities have elevated self-reports of loneliness, anonymity, victimization, and lower levels of school participation (Chen et al., 2015; Frederickson & Furnham, 2004; Pijl et al., 2008; Sabornie, 1994). The quality of support and integration level of special education services across the school district may affect the level of stigma and belonging students' feel. For example, if students in a self-contained classroom have little or no access to peers without a special education individualized plan, they may not feel as much stigma. However, if a student with a special education designation is in an inclusive learning environment with typical learners and has been incorporated well into the class, they may not feel stigmatized but feel a sense of belonging to a community of engaged learners. Future research might distinguish whether students with a special education designation attend school in inclusive environments versus self-contained classrooms.

Lastly, findings were consistent with the hypothesis suggesting that students with an A average GPA have significantly higher perception of being in a community of engaged learners. Research shows that students with higher levels of academic achievement may have a greater sense of belonging than students with lower levels (Booker, 2004; Furrer & Skinner, 2003; Ma, 2003).

Limitations

The interpretation of these findings needs to be considered in the context of the study's limitations. One limitation involves the measures used in this study. This study relied on self-report data from ninth grade students, which may be subject to bias and only considers the students' perspective. Future research might utilize data that compares perspectives of different students within the same classroom as well as teachers' perspectives. In addition, the data used for this analysis is cross-sectional, and thus no causal inferences can be made. Also, this study only examines the 2014–15 cohort of ninth grade students in the school district, and the results could be vastly different in other grades, thus limiting the generalizability of these findings. Lastly, this large school district has high schools that are structured differently—some are selective enrollment where students must apply and be accepted to attend while other high schools have enrollment based on where the student resides. Certain high schools may also have an arts program, International Baccalaureate programs, and/or Reserve Officer Training Corps (ROTC) within the high school. This high school structure may impact students' sense of belonging, particularly if the school community values one program over the other. In addition, the communities where schools are placed across the school district are racially segregated which impacts the classroom composition across high schools. Some high schools have majority Latino/a, Black, or White student enrollment, and a few of the high schools are racially mixed. Future research may consider how the structure and racial composition of a school may affect students' sense of belonging and community. These factors may be affecting the results because they were not accounted for and would be important to consider for future research. Accepting these limitations, this study nevertheless provides important questions and implications for community psychology research and practice in schools.

Conclusion

Classrooms that promote community help all students feel safe, respected, and valued while promoting learning and engagement. The present study explores teaching practices and their association to a measure of a classroom of engaged learners. Rather than assessing new, time-consuming strategies about ways to build community in their classrooms, we focus on the teaching practices that many educators already employ and provide information about which practices create community and for whom.

Our findings demonstrate a small but statistically significant relationship between teachers' structured and organized lessons and activities and their

academic support to the Community of Engaged Learners measure, though association on this varied across the 103 high schools. The findings for race/ethnicity and sex towards being a community of engaged learners were different from the literature. For instance, Black students in this large urban school district had higher rates of being in a community of engaged learners when compared to White and Asian students, which may reflect a positive outcome due to the segregation and racial isolation within high schools with majority Black or Latino/a students. But Latino/a students had a lower perception that they were in a classroom community compared to Black students which may be related to language barriers or immigration status in this urban district. Also, our finding that male students tended to perceive they were in a community of engaged learners at higher rates than females is interesting in light of the mixed findings about how belonging and community vary by sex. On one hand, our findings are a clear indication that more research is needed to explore the complexity of student identity, community, and belonging. On the other, they also suggest a clear importance to students' psychological sense of belonging in a community of engaged learners and the teacher's role in facilitating that community.

References

- Allen, K., Kern, M., Vella-Brodrick, L., Hattie, D., & Waters, J. (2018). What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review*, 30(1), 1–34.
- Allen, K. A., Slaten, C. D., Arslan, G., Roffey, S., Craig, H., & Vella-Brodrick, D. A. (2021). School belonging: The importance of student and teacher relationships. In *The Palgrave Handbook of Positive Education* (pp. 525–550). Palgrave Macmillan.
- Anderman, E. M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology*, 94(4), 795–809.
- Anderman, L. H. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *The Journal of Experimental Education*, 72(1), 5–22.
- Anderman, L. H., & Anderman, E. M. (1999). Social predictors of changes in students' achievement goal orientations. *Contemporary Educational Psychology*, 24(1), 21–37.
- Anderson, D. (2012). Hierarchical Linear Modeling (HLM): An introduction to key concepts within cross-sectional and growth modeling frameworks (Technical Report# 1308). *Behavioral Research and Teaching*.
- Banase, R., Gawronski, B., Rebetez, C., Gutt, H., & Bruce Morton, J. (2010). The development of spontaneous gender stereotyping in childhood: Relations to stereotype knowledge and stereotype flexibility. *Developmental Science*, 13(2), 298–306.
- Barron, L., & Kinney, P. (2021). *We belong: 50 Strategies to create community and revolutionize classroom management*. ASCD.
- Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal*, 32(3), 627–658.

- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*(3), 497–529.
- Benner, A. D., & Graham, S. (2007). Navigating the transition to multi-ethnic urban high schools: Changing ethnic congruence and adolescents' school-related affect. *Journal of Research on Adolescence*, *17*, 207–220.
- Benner, A. D., & Graham, S. (2009). The transition to high school as a developmental process among multiethnic urban youth. *Child Development*, *80*(2), 356–376.
- Bennett, M., & Sani, F. (2003). The role of target gender and race in children's encoding of category-neutral person information. *British Journal of Developmental Psychology*, *21*(1), 99–112.
- Birch, S. H., & Ladd, G. W. (1998). Children's interpersonal behaviors and the teacher-child relationship. *Developmental Psychology*, *34*(5), 934–946.
- Block, P. (2018). *Community: The structure of belonging*. Berrett-Koehler.
- Bonny, A. E., Britto, M. T., Klostermann, B. K., Hornung, R. W., & Slap, G. B. (2000). School disconnectedness: Identifying adolescents at risk. *Pediatrics*, *106*, 1017–1021.
- Booker, K. (2021). Rules without relationships lead to rebellion: Secondary teachers and school belonging. *School Community Journal*, *31*(1), 65–84. <https://www.adi.org/journal/2021ss/BookerSS21.pdf>
- Booker, K. C. (2004). Exploring school belonging and academic achievement in African American adolescents. *Curriculum and Teaching Dialogue*, *6*, 131–143.
- Booker, K. C. (2006). School belonging and the African American adolescent: What do we know and where should we go? *The High School Journal*, *89*(4), 1–7.
- Cemalcilar, Z. (2010). Schools as socialisation contexts: Understanding the impact of school climate factors on students' sense of school belonging. *Applied Psychology*, *59*(2), 243–272.
- Certo, J. L., Cauley, K. M., & Chafin, C. (2003). Students' perspectives on their high school experience. *Adolescence*, *38*, 705–724.
- Chen, C.-C., Hamm, J. V., Farmer, T. W., Lambert, K., & Mehtaji, M. (2015). Exceptionality and peer victimization involvement in late childhood: Subtypes, stability, and social marginalization. *Remedial and Special Education*, *36*(5), 312–324. <https://doi.org/10.1177/0741932515579242>
- Chicago Public Schools (CPS). (2021a). *Demographics: 2014–15*. <https://www.cps.edu/about/district-data/demographics/>
- Chicago Public Schools (CPS). (2021b). *My Voice, My School surveys*. <https://www.cps.edu/about/district-data/metrics/surveys/>
- Chiu, M. M., Chow, B. W. Y., McBride, C., & Mol, S. T. (2016). Students' sense of belonging at school in 41 countries: Cross-cultural variability. *Journal of Cross-Cultural Psychology*, *47*(2), 175–196.
- Corso, M. J., Bundick, M. J., Quaglia, R. J., & Haywood, D. E. (2013). Where student, teacher, and content meet: Student engagement in the secondary school classroom. *American Secondary Education*, 50–61.
- Craggs, H., & Kelly, C. (2018). Adolescents' experiences of school belonging: A qualitative meta-synthesis. *Journal of Youth Studies*, *21*(10), 1411–1425.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 1–44.
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. University Rochester Press.

- Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientations toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology, 73*(5), 642–650.
- Dewsbury, B., & Brame, C. J. (2019). Inclusive teaching. *CBE—Life Sciences Education, 18* (fe2).
- Eccles, J. S., Lord, S., & Buchanan, C. M. (2018). School transitions in early adolescence: What are we doing to our young people? In *Transitions through adolescence* (pp. 251–284). Psychology Press.
- Ehrlich, S. B., Gwynne, J. A., Stitzel Pareja, A., Allensworth, E. M., Moore, P., Jagesic, S., & Sorice, E. (2014). *Preschool attendance in Chicago Public Schools: Relationships with learning outcomes and reasons for absences*. University of Chicago Consortium on School Research.
- Ellerbrock, C., Kiefer, S. M., & Alley, K. M. (2014). School-based interpersonal relationships: Setting the foundation for young adolescents' belonging in middle school. *Middle Grades Research Journal, 9*(2), 1.
- El Zaatari, W., & Ibrahim, A. (2021). What promotes adolescents' sense of school belonging? Students and teachers' convergent and divergent views. *Cogent Education, 8*(1).
- Emmer, E., & Stough, L. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist, 36*, 103–112. https://doi.org/10.1207/S15326985EP3602_5
- Farmer, T. W., Hamm, J. V., Dawes, M., Barko-Alva, K., & Cross, J. R. (2019). Promoting inclusive communities in diverse classrooms: Teacher attunement and social dynamics management. *Educational Psychologist, 54*(4), 286–305.
- Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance—A critical literature review*. University of Chicago Consortium on School Research.
- Frederickson, N. L., & Furnham, A. F. (2004). Peer-assessed behavioral characteristics and sociometric rejection: Differences between pupils who have moderate learning difficulties and their mainstream peers. *British Journal of Educational Psychology, 74*(3), 391–410. <https://doi.org/10.1348/0007099041552305>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109.
- Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belongingness of college freshmen at the classroom and campus levels. *Journal of Experimental Education, 75*, 203–220.
- Furlong, M. J., Whipple, A. D., Jean, G. S., Simental, J., Soliz, A., & Punthuna, S. (2003). Multiple contexts of school engagement: Moving toward a unifying framework for educational research and practice. *The California School Psychologist, 8*(1), 99–113.
- Furman, G. C. (1998). Postmodernism and community in schools: Unraveling the paradox. *Educational Administration Quarterly, 34*(3), 298–328.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), 148–162.
- Garcia-Reid, P. (2007). Examining social capital as a mechanism for improving school engagement among low-income Hispanic girls. *Youth & Society, 39*(2), 164–181.
- Ghaith, G. M. (2002). The relationship between cooperative learning, perception of social support, and academic achievement. *System, 30*(3), 263–273.
- Gillen-O'Neel, C. (2021). Sense of belonging and student engagement: A daily study of first- and continuing-generation college students. *Research in Higher Education, 62*(1), 45–71.

- Gillen-O'Neel, C., & Fuligni, A. J. (2013). A longitudinal study of school belonging and academic motivation across high school. *Child Development, 84*(2), 678–692.
- Goldstein, L. S., & Lake, V. E. (2000). Love, love, and more love for children: Exploring pre-service teachers understanding of caring. *Teaching and Teacher Education, 16*(8), 861–872. [https://doi.org/10.1016/S0742-051X\(00\)00031-7](https://doi.org/10.1016/S0742-051X(00)00031-7)
- Gonzales, R. G., Heredia, L. L., & Negrón-Gonzales, G. (2015). Untangling Plyler's legacy: Undocumented students, schools, and citizenship. *Harvard Educational Review, 85*(3), 318–341.
- Goodenow, C. (1992). Strengthening the links between educational psychology and the study of social contexts. *Educational Psychologist, 27*(2), 177–196.
- Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *The Journal of Early Adolescence, 13*(1), 21–43.
- Goodenow, C., & Grady, K. E. (1993). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *The Journal of Experimental Education, 62*(1), 60–71.
- Guthrie, J. T., & Davis, M. H. (2003). Motivating struggling readers in middle school through an engagement model of classroom practice. *Reading & Writing Quarterly, 19*(1), 59–85.
- Glynn, T. (1981). Psychological sense of community: Measurement and application. *Human Relations, 34*(7), 789–818.
- Hanewald, R. (2013). Transition between primary and secondary school: Why it is important and how it can be supported. *Australian Journal of Teacher Education, 38*(1), 62–74.
- Hayes, D. (2003). Emotional preparation for teaching: A case study about trainee teachers in England. *Teacher Development, 7*(2), 153–171.
- Hines, M. T., III. (2007). Adolescent adjustment to the middle school transition: The intersection of divorce and gender in review. *RMLE Online, 31*(2), 1–15.
- Hughes, J. N., & Cao, Q. (2018). Trajectories of teacher–student warmth and conflict at the transition to middle school: Effects on academic engagement and achievement. *Journal of School Psychology, 67*, 148–162.
- Hughes, J. W., Zhang, D., & Hill, C. R. (2006). Peer assessment of normative and individual teacher–student support predict social acceptance and engagement among low-achieving children. *Journal of School Psychology, 43*, 447–463.
- Ibañez, G. E., Kuperminc, G. P., Jurkovic, G., & Perilla, J. (2004). Cultural attributes and adaptations linked to achievement motivation among Latino adolescents. *Journal of Youth and Adolescence, 33*(6), 559–568.
- Ibrahim, A., & El Zaatari, W. (2020). The teacher–student relationship and adolescents' sense of school belonging. *International Journal of Adolescence and Youth, 25*(1), 382–395.
- Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology, 102*(3), 588–600.
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491–525.
- Johnson, L. S. (2009). School contexts and student belonging: A mixed methods study of an innovative high school. *School Community Journal, 19*(1), 99–118. <https://www.adi.org/journal/ss09/JohnsonSpring2009.pdf>
- Juvonen, J. (2007). Reforming middle schools: Focus on continuity, social connectedness, and engagement. *Educational Psychologist, 42*(4), 197–208.

- Kenny, M. E., & Bledsoe, M. (2005). Contributions of the relational context to career adaptability among urban adolescents. *Journal of Vocational Behavior*, *66*, 257–272.
- Keyes, T. S. (2019). A qualitative inquiry: Factors that promote classroom belonging and engagement among high school students. *School Community Journal*, *29*(1), 171–200. <https://www.adi.org/journal/2019ss/KeyesSS2019.pdf>
- Kiefer, S. M., Alley, K. M., & Ellerbrock, C. R. (2015). Teacher and peer support for young adolescents' motivation, engagement, and school belonging. *Research in Middle Level Education Online*, *38*(8), 1–18.
- Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, *74*(7), 262–273.
- Korpershoek, H., Canrinus, E. T., Fokkens-Bruinsma, M., & de Boer, H. (2020). The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: A meta-analytic review. *Research Papers in Education*, *35*(6), 641–680.
- Košir, K., & Tement, S. (2014). Teacher–student relationship and academic achievement: A cross-lagged longitudinal study on three different age groups. *European Journal of Psychology of Education*, *29*(3), 409–428.
- Kraft, M. A., Papay, J. P., Johnson, S. M., Charner-Laird, M., Ng, M., & Reinhorn, S. (2015). Educating amid uncertainty: The organizational supports teachers need to serve students in high-poverty, urban schools. *Educational Administration Quarterly*, *51*(5), 753–790.
- Kreniske, P., Spindler, E., & Santelli, J. (2020). Adolescent development and schooling in the digital age. In *Technology and Adolescent Health* (pp. 1–23). Academic Press.
- Kwok, A. (2021). Managing classroom management preparation in teacher education. *Teachers and Teaching*, *27*(1–4), 206–222.
- Lamborn, S., Newmann, F., & Wehlage, G. (1992). The significance and sources of student engagement. *Student Engagement and Achievement in American Secondary Schools*, 11–39.
- Lee, J. S. (2012). The effects of the teacher–student relationship and academic press on student engagement and academic performance. *International Journal of Educational Research*, *53*, 330–340.
- Libbey, H. P. (2004). Measuring student relationships to school: Attachment, bonding, connectedness, and engagement. *Journal of School Health*, *74*(7), 274–283.
- Linacre, J. M. (2016). *Winsteps® Rasch measurement computer program*. Winsteps.
- Liu, Y., & Lu, Z. (2011). Trajectories of Chinese students' sense of school belonging and academic achievement over the high school transition period. *Learning and Individual Differences*, *21*, 187–190.
- Loveland, E. (2018). Creating a sense of community and belonging for Latinx students. *Journal of College Admission*, *241*, 44–49.
- Luppescu, S. (2013). Using Rasch measures in a multi-level context. *Rasch Measurement Transactions*, *27*(2), 1413–1414.
- Ma, X. (2003). Sense of belonging to school: Can schools make a difference? *Journal of Educational Research*, *96*(3), 340–349.
- Martin, A. J., & Collie, R. J. (2019). Teacher–student relationships and students' engagement in high school: Does the number of negative and positive relationships with teachers matter? *Journal of Educational Psychology*, *111*(5), 861.
- Martinez, R. S., Aricak, O. T., Graves, M. N., Peters-Myszak, J., & Nellis, L. (2011). Changes in perceived social support and socioemotional adjustment across the elementary to junior high school transition. *Youth Adolescence*, *40*, 519–530.
- Maslow, A. H. (1970). *Motivation and personality* (2nd ed.). Harper & Row.

- McCartin, L. (2020). Webinar: Building a classroom community during the pandemic. *Teaching, Learning, & Assessment*, 56. <https://digscholarship.unco.edu/tla/56>
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6–23.
- McNamee, A., Mercurio, M., & Peloso, J. M. (2007). Who cares about caring in early childhood teacher education programs? *Journal of Early Childhood Teacher Education*, 28(3), 277–288. <https://doi.org/10.1080/10901020701555580>
- Murphy, M. C., & Zirkel, S. (2015). Race and belonging in school: How anticipated and experienced belonging affect choice, persistence, and performance. *Teachers College Record*, 117(12), 1–40.
- Murray, C., & Murray, K. M. (2004). Child level correlates of teacher–student relationships: An examination of demographic characteristics, academic orientations, and behavioral orientations. *Psychology in the Schools*, 41(7), 751–762.
- Muthén, B. O. (1991). Multilevel factor analysis of class and student achievement components. *Journal of Educational Measurement*, 28(4), 338–354.
- Muthén, B. O. (1994). Multilevel covariance structure analysis. *Sociological Methods & Research*, 22(3), 376–398.
- Muthén, B., & Satorra, A. (1989). Multilevel aspects of varying parameters in structural models. In *Multilevel Analysis of Educational Data* (pp. 87–99). Academic Press.
- Olsson, E. (2009). The role of relations: Do disadvantaged adolescents benefit more from high-quality social relations? *Acta Sociologica*, 52(3), 263–286.
- Osterman, K. F. (2000). Students’ need for belonging in the school community. *Review of Educational Research*, 70(3), 323–367.
- Osterman, K. F. (2010). Teacher practice and students’ sense of belonging. In *International research handbook on values education and student wellbeing* (pp. 239–260).
- Pendergast, D., Allen, J., McGregor, G., & Ronksley-Pavia, M. (2018). Engaging marginalized, “at-risk” middle-level students: A focus on the importance of a sense of belonging at school. *Education Sciences*, 8(3), 138.
- Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher–student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In *Handbook of research on student engagement* (pp. 365–386). Springer.
- Pijl, S. J., Frostad, P., & Flem, A. (2008). The social position of pupils with special needs in regular schools. *Scandinavian Journal of Educational Research*, 52(4), 387–405. <https://doi.org/10.1080/00313830802184558>
- Quinn, S., & Oldmeadow, J. A. (2013). Is the i-generation a “we” generation? Social networking use among 9- to 13-year-olds and belonging. *British Journal of Developmental Psychology*, 31(1), 136–142.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (Vol. 1). Sage.
- Raudenbush, S. W., Bryk, A. S., Cheong, Y. F., Congdon, R., & Du Toit, M. (2011). Hierarchical linear and nonlinear modeling (HLM7). *Scientific Software International*, 1112.
- Reeve, J., & Jang, H. (2006). What teachers say and do to support students’ autonomy during a learning activity. *Journal of Educational Psychology*, 98(1), 209–218.
- Reeve, J., & Shin, S. H. (2020). How teachers can support students’ agentic engagement. *Theory Into Practice*, 59(2), 150–161.
- Reyes, M. R., Brackett, M. A., Rivers, S. E., White, M., & Salovey, P. (2012). Classroom emotional climate, student engagement, and academic achievement. *Journal of Educational Psychology*, 104(3), 700.

- Ritchie, S. M., & Rigano, D. L. (2002). Discourses about a teacher's self-initiated change in praxis: Storylines about care and support. *International Journal of Science Education*, 24(10), 1079–1094. <https://doi.org/10.1080/09500690210126478>
- Rivera, L. A. (2016). *Pedigree: How elite students get elite jobs*. Princeton University Press.
- Roberts, J. K. (2007, April). *Group dependency in the presence of small intraclass correlation coefficients: An argument in favor of not interpreting the ICC*. Presented at the annual meeting of the American Educational Research Association.
- Rogers, D., & Webb, J. (1991). The ethic of caring in teacher education. *Journal of Teacher Education*, 42(3), 173–181. <https://doi.org/10.1177/002248719104200303>
- Roth, G., Assor, A., Kanat-Maymon, Y., & Kaplan, H. (2007). Autonomous motivation for teaching: How self-determined teaching may lead to self-determined learning. *Journal of Educational Psychology*, 99, 761–774.
- Rovai, A. P. (2002). Development of an instrument to measure classroom community. *Internet and Higher Education*, 5(3), 197–211.
- Royal, M. A., & Rossi, R. J. (1997). *Schools as communities* (ERIC ED 405 641).
- Russell, S. L., Wentzel, K. R., & Donlan, A. E. (2016). Teachers' beliefs about the development of teacher–adolescent trust. *Learning Environments Research*, 19(2), 241–266.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, 38(2), 437–460.
- Sabornie, E. J. (1994). Social–affective characteristics in early adolescents identified as learning disabled and nondisabled. *Learning Disability Quarterly*, 17(4), 268–279.
- Sale, P., & Carey, D. M. (1995). The sociometric status of students with disabilities in a full-inclusion school. *Exceptional Children*, 62(1), 6–19. <https://doi.org/10.1177/001440299506200102>
- Sánchez, B., Colón, Y., & Esparza, P. (2005). The role of sense of school belonging and gender in the academic adjustment of Latino adolescents. *Journal of Youth and Adolescence*, 34(6), 619–628.
- Sarason, S. B. (1974). *The psychological sense of community: Prospects for a community psychology*. Jossey-Bass.
- Silver Wolf, D. A. P., Perkins, J., Butler-Barnes, T., & Walker, T. A., Jr. (2017). Social belonging and college retention: Results from a quasi-experimental pilot study. *Journal of College Student Development*, 58(95), 777–782. <https://doi.org/10.1353/csd.2017.0060>
- Simmons, R. G., & Blyth, D. A. (2017). *Moving into adolescence: The impact of pubertal change and school context*. Routledge.
- Singh, C. K. S., Singh, T. S. M., Ja'afar, H., Tek, O. E., Kaur, H., Moastafa, N. A., & Yunus, M. (2020). Teaching strategies to develop higher-order thinking skills in English literature. *International Journal of Innovation, Creativity and Change*, 11(80), 211–231.
- Skinner, E., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational Psychology*, 100(4), 765–781.
- Solomon, D., Watson, M., Battistich, V., Schaps, E., & Delucchi, K. (1996). Creating classrooms that students experience as communities. *American Journal of Community Psychology*, 24(6), 719–748.
- Spybrook, J., Raudenbush, S. W., Liu, X. F., Congdon, R., & Martínez, A. (2006). *Optimal design for longitudinal and multilevel research: Documentation for the "Optimal Design" software*. Survey Research Center of the Institute of Social Research at University of Michigan.

- St-Amand, J., Girard, S., & Smith, J. (2017). Sense of belonging at school: Defining attributes, determinants, and sustaining strategies. *IAFOR Journal of Education*, 5(2). <https://doi.org/10.22492/ije.5.2.05>
- Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, 52, 83–110.
- Strayhorn, T. L. (2018). *College students' sense of belonging: A key to educational success for all students*. Routledge.
- Stough, L. M., Montague, M. L., Landmark, L. J., & Williams-Diehm, K. (2015). Persistent classroom management training needs of experienced teachers. *Journal of the Scholarship of Teaching and Learning*, 15(5), 36–48.
- Tillery, A. D., Varjas, K., Roach, A. T., Kuperminc, G. P., & Meyers, J. (2013). The importance of adult connections in adolescents' sense of school belonging: Implications for schools and practitioners. *Journal of School Violence*, 12(2), 134–155.
- Velasquez, A., West, R., Graham, C., & Osguthorpe, R. (2013). Developing Caring Relationships in Schools: A Review of the Research on Caring and Nurturing Pedagogies. *Review of Education*, 1(2), 162–190. <https://doi.org/10.1002/rev3.3014>
- Voelkl, K. E. (1997). Identification with school. *American Journal of Education*, 105, 294–310.
- Wang, M. T., & Eccles, J. S. (2012). Adolescent behavioral, emotional, and cognitive engagement trajectories in school and their differential relations to educational success. *Journal of Research on Adolescence*, 22(1), 31–39.
- Wang, M. T., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. *American Educational Research Journal*, 47(3), 633–662.
- Waters, S., Cross, D., & Shaw, T. (2010). Does the nature of schools matter? An exploration of selected school ecology factors on adolescent perceptions of school connectedness. *British Journal of Educational Psychology*, 80(3), 381–402.
- Watkins, R. (2005). Developing interactive e-learning activities. *Performance Improvement*, 44(5), 5–7.
- Watson, M., Ecken, L., & Kohn, A. (2003). *Learning to trust: Transforming difficult elementary classrooms through developmental discipline*. Jossey-Bass.
- Wenger, E. (2010). Communities of practice and social learning systems: The career of a concept. In *Social learning systems and communities of practice* (pp. 179–198). Springer.
- Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, 89(3), 411–419.
- Wentzel, K. R., Muenks, K., McNeish, D., & Russell, S. (2018). Emotional support, social goals, and classroom behavior: A multilevel, multisite study. *Journal of Educational Psychology*, 110(5), 611.
- Witherspoon, D., & Ennett, S. (2011). Stability and change in rural youths' educational outcomes through the middle and high school years. *Journal of Youth and Adolescence*, 40, 1077–1090.
- Woltman, H., Feldstain, A., MacKay, J. C., & Rocchi. (2012). An introduction to hierarchical linear modeling. *Tutorials in Quantitative Methods for Psychology*, 8(1), 52–69.
- Zohar, A., & Dori, Y. (2003). Higher order thinking skills and low-achieving students: Are they mutually exclusive? *Journal of the Learning Sciences*, 12, 145–181. https://doi.org/10.1207/S15327809JLS1202_1
- Zumbrunn, S., McKim, C., Buhs, E., & Hawley, L. R. (2014). Support, belonging, motivation, and engagement in the college classroom: A mixed method study. *Instructional Science*, 42, 661–684.

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Appendix. Survey Items

Community of Engaged Learners
(1) Are you interested in participating in class discussions/activities?
(2) Do you feel comfortable being your “true self”?
(3) Is there agreement within the class that you have to make mistakes in order to learn the material?
(4) Do you feel successful when doing the work for this class?
(5) Do you receive enough step-by-step support to do the work in this class?
<i>1=Not at all, 2=A little, 3=Somewhat, 4=Mostly, and 5=Completely</i>
Lesson Organization and Structure
(1) How much do you agree with the following statements about your {class}?
(2) I learn a lot from feedback on my work.
(3) It’s clear to me what I need to do to get a good grade.
(4) The work we do in class is good preparation for the test.
(5) The homework assignments help me learn the course material.
(6) I know what my teacher wants me to learn in this class.
<i>1=Strongly Disagree 2=Disagree 3=Strongly Disagree 4=Strongly Agree</i>

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Academic Support
How much do you agree with the following about your {class}?
The teacher for this class...
(1) Helps me catch up if I am behind.
(2) Is willing to give extra help on schoolwork if I need it.
(3) Notices if I have trouble learning something.
(4) Gives me specific suggestions about how I can improve my work in this class.
(5) Explains things in a different way if I don't understand something in class.
<i>1=Strongly Disagree 2=Disagree 3=Strongly Disagree 4=Strongly Agree</i>
Student-Teacher Trust
How much do you agree with the following statements?
(1) When my teachers tell me not to do something, I know he/she has a good reason.
(2) I feel safe and comfortable with my teachers at this school.
(3) My teachers always keep their promises.
(4) My teachers will always listen to students' ideas.
(5) My teachers treat me with respect.
<i>1=Strongly Disagree 2=Disagree 3=Strongly Disagree 4=Strongly Agree</i>