Article

What Matters for Urban Adolescents' Engagement and Disengagement in School: A Mixed-Methods Study

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Abstract

This study uses a mixed-method sequential exploratory design to examine influences on urban adolescents' engagement and disengagement in school. First, we interviewed 22 middle and high school students who varied in their level of engagement and disengagement. Support from adults and peers, opportunities to make choices, and external incentives aligned with greater engagement. In contrast, a strict disciplinary structure, an irrelevant and boring curriculum, disengaged peers, and lack of respect by adults coincided with greater disengagement. From these interviews, we tested whether these factors were statistically significant predictors of engagement and disengagement in a sample of 611 middle and high school students. In the majority of models, these predictors were significantly related to engagement and disengagement in the expected direction. Implications of findings for educational practice are discussed.

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Keywords

Increasing student engagement is a mechanism to both promote positive academic outcomes and reduce involvement in negative behaviors. Active engagement in school enhances the skills, competencies, and values that are critical to academic success, and allows adolescents to transition successfully to adulthood. Students who are more engaged do better academically and show more favorable psychological adjustment (Li & Lerner, 2011; Reeve, 2013; Wang & Peck, 2013). In contrast, disengagement is associated with negative outcomes, including higher problem behaviors, delinquency, and substance use (Wang & Fredricks, 2014). Unfortunately, students become increasingly disengaged as they progress through school, with declines being particularly severe for low-income African American and Latino youth attending urban schools (Benner & Graham, 2009; Wigfield et al., 2015). Adolescents attending urban schools, which enroll a disproportionately high number of low-income students of color, face particular engagement challenges as a result of higher rates of student and teacher turnover, limited resources, and higher concentrations of poverty and racial isolation (Duncan & Murnane, 2014; National Research Council, 2004). However, it is important to recognize that despite experiencing greater adversities in their schools and communities, some urban adolescents are highly engaged (Dotterer & Wehrspann, 2016; Wang & Peck, 2013).

To date, most of the prior research has used quantitative methods to examine predictors of engagement among White working- and middle-class samples. This research has linked motivational factors (e.g., value, interest, competence, and mastery goals) and classroom contextual factors (e.g., peer support, teacher-student relationships, and autonomy support) to school engagement (see Christenson, Reschly, & Wylie, 2012, for review). In addition, a few studies have examined the predictors of disengagement, though much of this work has focused on the individual and demographic factors that put students at higher risk of dropping out of school (Balfanz, Herzog, & Mac Iver, 2007; Rumberger, 2011). Individual factors (e.g., low achievement, disciplinary referrals, attendance problems) and demographic factors (e.g., English language status, special education, race, and gender) have been shown to be predictors of disengaging and eventually dropping out of school (Balfanz et al., 2007; Heppen & Therrailt, 2008). However, few studies have assessed engagement and disengagement as separate constructs, and hence, it is not clear whether these factors are differentially related to student engagement and disengagement in school.

Although the majority of research has used quantitative techniques, a handful of studies have used qualitative methods to explore classroom processes and engagement. For example, Wallace and Chhuon (2014) found that urban adolescents felt more engaged when their teachers listened to them, gave them a voice, took their views seriously, and adapted instructional practices to better meet their needs. In addition, Fredricks, Wang, et al. (2016) talked to adolescents about their math and science engagement, and found that engagement was higher when students felt competent, thought math and science was useful to their future, perceived support from teachers and peers, and were in more student-centered classrooms. In sum, these qualitative studies have provided some insight into the contextual factors associated with engagement, but it is less clear how African American and White urban adolescents who vary in their level of engagement describe both their engagement and disengagement in school.

Collectively, existing engagement research lacks ecologically contextualized studies with the empirical power and qualitative depth to examine how classroom processes affect students' engagement and disengagement in school. This dearth of literature is particularly notable in secondary school where students' engagement declines and pronounced achievement gaps begin (Eccles & Roeser, 2013). Moreover, the limited research on how racially and ethnically diverse youth describe their engagement and disengagement in school is an important gap, in light of a growing body of research documenting racial and ethnic disparities in academic achievement and educational attainment (National Center for Educational Statistics [NCES], 2016; Reardon, 2011). In response, this study addresses these gaps by using an exploratory mixed-method sequential design to examine the contextual factors that influence variations in both students' engagement and disengagement in a racially and economically diverse sample of urban middle and high school students.

Theoretical Framework

Self-System Model

In this article, we use the self-system model (Connell & Wellborn, 1991; Reeve, 2012) as an overarching theoretical framework to examine how individual and contextual factors influence variations in student engagement and disengagement in school. The self-system model links contextual factors to patterns of engagement versus disengagement through self-system processes, or an individual's self-appraisals of how *related, autonomous*, or *competent* he or she feels within particular contexts. *Relatedness* refers to the extent to

which individuals feel connected to and accepted by others (Jang, Kim, & Reeve, 2016). *Autonomy* refers to the need to experience behavior as self-initiated rather than being controlled by external incentives (Reeve, 2012). Finally, *competence* refers to the extent to which an individual knows how to achieve certain results and feels efficacious in doing so (Skinner, Furrer, Marchand, & Kindermann, 2008). Drawing on this theoretical framework, student engagement is conceptualized as part of a larger motivational process with the learning context feeding back into the individuals' conceptualization of themselves. The experiential quality of interactions with teachers and peers provides adolescents with information about themselves as being competent to succeed, as being related to others in these settings, as being autonomous learners, and as having opportunities to fulfill their personal and social identities (Eccles & Roeser, 2013; Wang & Eccles, 2013).

In addition, engagement and disengagement are related but distinct constructs. Disengagement is theorized to indicate not only the absence of engagement but also the presence of maladaptive processes and states (Skinner, Kindermann, Connell, & Wellborn, 2009; Wang, Fredricks, Ye, Hofkens, & Schall, 2017). A variety of terms have been used to reflect these processes including disengagement (Wang et al., 2017), disaffection (Skinner et al., 2009), and burnout (Salmelya-Aro & Upadaya, 2014). However, in most studies, engagement and disengagement are measured on a single continuum, with lower levels of engagement indicating disengagement (Fredricks, Filsecker, & Lawson, 2016; Wang & Degol, 2014). This approach fails to take into account the range of ways students can express disengagement, assuming, instead, that disengagement is merely the absence of engagement. Recent studies suggest that engagement and disengagement (Wang et al., 2017) and engagement and disaffection (Skinner et al., 2008) are separate and unique constructs that are associated with different learning outcomes. These differential relations may reflect that engagement is characterized by energized, sustained, and directed action toward learning, while disengagement or disaffection is a reflection of maladaptive states and indicative of withdrawal from involvement in the learning process (Skinner et al., 2009).

Prior research supports the tenets of the self-system model. The need for relatedness is supported when adolescents have close and caring relationships with teachers and other adults at school, which has been shown to be related to higher student engagement (Murray, 2009; Wang & Holcombe, 2010) and especially important for the engagement of low-income and racial minority adolescents (Brewster & Bowen, 2004; Garcia-Reid, Reid, & Peterson, 2005). In contrast, conflictual relationships with teachers and lack of support is associated with indicators of behavioral and emotional

disengagement (Furrer, Skinner, & Pitzer, 2014; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). Research also indicates a positive relation between peer support and engagement (Juvonen, Espinosa, & Knifsend, 2012; Wang, Kiuru, Degol, & Salmela-Aro, 2018). However, students who have poor relationships with their peers or are actively rejected by their peers have been found to have higher rates of disengagement, which puts them at greater risk of dropping out of school (Juvonen et al., 2012; Ladd, Ettekal, & Kochenderfer-Ladd, 2017).

The need for autonomy is supported when adolescents feel that they have the freedom to determine their own behavior, as opposed to being controlled by external factors. Teachers can support students' autonomy by minimizing external evaluation pressures and by increasing students' opportunities for voice and choice (Niemiec & Ryan, 2009). In contrast, in controlling environments, teachers ask students to adhere to their agendas by offering extrinsic incentives, making external evaluations salient, and using pressuring language (Reeve & Jang, 2006). Research shows that adolescents in autonomy-supportive classrooms have higher engagement, deeper conceptual understanding, and achievement than students in controlling classrooms (Reeve, Jang, Carrell, Jeon, & Barch, 2004). Furthermore, many schools, especially those in urban areas, have strict disciplinary policies because of a belief in a need to contain and control misbehavior (Noguera, 2003a). These policies do not support adolescents' need for autonomy and, as a result, may lead to higher rates of disengagement (Langhout & Mitchell, 2008).

Finally, the need for competence is supported when classroom and school environments are optimal in structure and when students are clear about what they need to do to achieve school success. Teachers can provide optimal structure by communicating clear and consistent expectations and by helping students see that success depends on internal and controllable factors. The achievement goal structure also affects students' perceptions of competence (Urdan & Schoenfelder, 2006). Students who perceive that their teachers emphasize self-improvement and endorse mastery goals have higher engagement than those students whose teachers emphasize relative ability and endorse performance goals (Wang & Holcombe, 2010).

In sum, although previous research supports the tenets of self-system model, there are several gaps in our knowledge. First, few studies have talked directly to urban adolescents about their school experiences to better understand the contextual factors that support students' needs for competence, relatedness, and autonomy, and whether these factors can help to explain variations in engagement and disengagement in school. Second, most of the research has used quantitative techniques to test the predictive associations between contextual factors and indicators of engagement, and

we know much less about whether these factors have similar associations with disengagement. Research that explores the differential impact of these contextual factors is important to identify those precursors that are most amenable to future intervention efforts. Furthermore, few studies have examined contextual factors and engagement among racially and economically diverse adolescents attending urban schools during the secondary school years.

These research gaps are critical because adolescence is the age when youth are particularly at risk of declines in engagement. As youth progress through secondary school, classroom instruction and teacher-student relationships become more rigid and depersonalized, which often have a global, negative impact on adolescents' sense of relatedness, autonomy, and competence at school (Eccles & Roeser, 2013). At the same time, these psychological needs are of great importance for adolescent well-being and achievement, particularly as adolescents mature and negotiate their identities as autonomous individuals from authority figures (Benner & Graham, 2009; Patall, Vasquez, Steingut, Trimble, & Pituch, 2016; Wang & Eccles, 2012b). Given that schools become *less* supportive over time and that adolescents assume *greater* control in their decision to persist in school, it is unsurprising that the quality of adolescents' engagement in school declines across the secondary school years (Janosz, Archambault, Morizot, & Pagani, 2008; Wang & Degol, 2014; Wang & Eccles, 2012a). Although school contexts that meet students' psychological needs likely benefit students of all ages, contextual supports may be especially important for increasing engagement and reducing disengagement among older adolescents.

Furthermore, it is of high importance to understand these processes within schools that serve racial minority adolescents, given the unique challenges that racial minority youth face in academic settings. Racial minority students face negative stereotypes of academic incompetence (Osborne & Walker, 2006), harsh punishment from teachers (Okonofua, Walton, & Eberhardt, 2016), and less emotionally supportive school climates (Wang & Degol, 2016). In other words, racial minority adolescents face even greater assaults to the self-system processes of competence, autonomy, and relatedness during the secondary school years, making it especially important to understand what school factors support engagement and contribute to disengagement processes among this population. We examine these processes in a unique context—an urban charter school system—which may offer insight into novel strategies for promoting engagement (Berends, 2015; Betts & Tang, 2016), but may also highlight the universal challenges that racial minority adolescents experience in school contexts (e.g., punitive discipline) and contribute to disengagement.

Mixed Methods

Mixed-methods studies build on the complementary strengths of both qualitative and quantitative methods (Creswell, Plano, Clark, Gutmann, & Hanson, 2003; R. B. Johnson & Onwuegbuzie, 2004). Qualitative methods can provide in-depth information on the contextual and motivation factors related to both engagement and disengagement, the process by which these factors influence engagement over time, and can uncover additional factors that have not been previously described in the research (R. B. Johnson & Onwuegbuzie, 2004; Tolan & Deutsch, 2015). However, one problem with qualitative approaches is that the knowledge produced may be unique to the limited number of individuals included in the research. In contrast, using quantitative methods, researchers can test the predictive associations between the individual and contextual factors and engagement in a large sample, and compare these findings with prior research using other populations. However, because these techniques are based on researchers' conceptions of the factors that are important to engagement/disengagement, they can also miss out on other factors important to adolescents and that can help explain variations in these constructs.

In order to utilize the strengths of each method, we use a sequential exploratory design to integrate qualitative and quantitative methods (Creswell et al., 2003). This design is conducted in two phases, with priority given to the qualitative phase of study. In the first phase, we selected a sample of middle and high school urban students who varied in their level of engagement to interview about the meanings and purposes they ascribed to their engagement, disengagement, and school experiences. This sampling procedure is in accordance with Patton's (2002) recommendation to purposely select cases at the extreme of a distribution because they are more likely to contain rich information. From the interviews, we identified themes related to the motivational and contextual factors that adolescents perceived as influencing their engagement.

In the second phase, we used survey data on motivation, engagement, and contextual factors collected from a larger sample in the same school district to test the predictive associations between those factors identified in the interviews and engagement and disengagement with this larger sample. The constructs in this larger study were initially chosen based on a review of the literature. Examples of these constructs include teacher support, peer interactions, school belonging, autonomy, goal structure, intrinsic value, extrinsic value, identity, expectancy beliefs, and school safety. From this larger list of constructs, we chose specific scales to test in the quantitative analysis that emerged from the interviews around support from teachers, peer support, autonomy and decision-making opportunities, and clarity of rules and expectations.

Our goal was to understand why certain individual and contextual factors were differentially related to student engagement and disengagement in school. This quantitative approach allowed us to examine the extent to which the qualitative findings generalize to a larger sample of students attending the same school. Furthermore, this analysis allowed us to examine the unique contributions of each contextual factor, as some contextual factors may be correlated (e.g., teacher support and provision of autonomy; Wang & Degol, 2016; Wang & Eccles, 2013). Finally, we could parse apart disengagement from engagement with this analysis and examine how school context factors contributed to each psychological process. Together, this mixed-methods approach provided nuanced understandings of the processes related to school context, engagement, and disengagement.

Qualitative Study

Sample

All participants were recruited from a not-for-profit network of public charter schools that was established to serve high-poverty and resource-poor neighborhoods in an urban district in the mid-Atlantic region. A large percentage of students are minority (73% African American) and low-income students (73% on free or reduced lunch). The philosophy of this network of charter schools is to improve the educational performance and life outcomes of children in underserved communities through innovative and student-centered learning practices. The district was part of a larger longitudinal study of motivation, context, and engagement, and was selected because of its interest in promoting student engagement and its diverse student population. The school district serves more than 4,000 students across 13 schools in the same metropolitan area.

We initially asked school administrators at one middle school and one high school in the district to identify students who were showing signs of disengagement, who were diverse in race and gender, and who were in the sixth, eighth, and 10th grades (a small number of seventh and 11th graders who were taking sixth- or 10th-grade coursework, respectively, were also included in recruitment efforts). In order to examine factors associated with variations in engagement, we then asked administrators to expand recruitment and also identify highly engaged students in the sixth, eighth, and 10th grades who were diverse in race and gender. The administrative and teaching staff is predominately White.

Consent forms were sent home to both the low and highly engaged students identified by school administrators in two separate rounds of recruitment. The

first round of consents was sent home in December for the middle school and in January for the high school. A second set of consents was sent home in March at both schools. Any student who returned the consent form was eligible to participate. The interview sample included 22 students, half of whom were in middle school (sixth grade [$N = 9$], seventh grade [$N = 1$], and eighth grade [$N = 1$]) and half in high school (10th graders [$N = 8$] and 11th graders [$N = 3$]). The sample had an equal number of male ($N = 11$) and female ($N = 11$) students, and was racially diverse (13 African American students, two biracial students, and seven White students).

Method

Participant interviews took place between February and April 2017. Interviews were conducted by three White females, including the first author, a graduate student, and the project coordinator. All the interviewers had prior experience conducting semistructured interviews with racially diverse adolescents. Because our aim was to collect rich descriptive data, we chose to use multiple interviewers to elicit a wider range of responses on each topic (Erickson & Stull, 1998). We used a semistructured interview format, which not only ensured a degree of comparability across interviews but also allowed for additional themes to arise (Miles & Huberman, 1994). The interview questions were organized around the following areas: (a) the meaning of engagement and disengagement, (b) the influence of motivational factors (e.g., value, ability, and coping) on engagement and disengagement, (c) the influence of classroom contextual factors (e.g., teachers, peers, and task) and family on engagement and disengagement, (d) time use outside of school, and (e) future educational and career aspirations. To increase comparability across interviews and interviewers, we used a detailed interview protocol, which outlined specific issues to attend to and suggested probes. However, to fully explore the meaning that students ascribed to their school experiences, we also allowed participants' answers to help guide the direction taken during the interviews.

Data Analysis

We used a combination of induction, deduction, and verification techniques to analyze the interviews (Miles, Huberman, & Saldaña, 2013; Saldaña, 2009). First, the research team read all transcripts to provide a holistic review of the participants' engagement and school experience. Next, we met to discuss initial reactions and develop potential categories that reflected the motivational and contextual factors that were related to engagement. This list of

categories was based on both the prior literature and influences that participants discussed in their interviews. These categories included peers, teacher, staff, school-level factors, autonomy, competence, and value. We wrote summaries for each participant around each of these categories, as well as an overall summary of initial impressions related to engagement and disengagement for each participant. These summaries were then exchanged with another team member to verify the conclusions. The research team met to reach consensus on emerging themes related to the contextual factors that were associated with both engagement and disengagement.

In the next step, two researchers separately calculated the percentage of adolescents who mentioned the theme at least once in the interview. An adolescent was included in this count if it was mentioned by at least one of the coders. In interpreting the frequency of these themes, it is important to acknowledge variability in the degree of probing and the depth of responses. Because it was a semistructured interview format, not all participants were asked about all of the influences, and frequencies were affected by individual differences in how students engage.

The percent agreement between the two raters ranged from 77% (17/22) to 100% (22/22) agreement for each of the 22 themes identified. In addition, we calculated kappa statistics for each of the themes (see Table 1). According to Landis and Koch (1977), two of the kappa statistics are in the range of *fair agreement* (.21-.40), three are in the range of *moderate agreement* (.41-.60), four are in the range of *substantial agreement* (.61-.80), and 12 are in the range of *almost perfect agreement* (greater than .81).

Qualitative Results

The variability in adolescents' self-descriptions of their engagement aligned with administrators' intentions to recruit students who showed signs of both low and high engagement. Half of the 22 students described themselves as highly engaged (N = three White, six African American, and two mixed race; highly engaged). The remaining 11 described their engagement as mixed and depending on the context (N = four White, seven African American; unevenly engaged). When these students liked their teacher or the topic they were learning, felt they were having a good day, and were on top of their work, they felt highly engaged. However, these students described disengaging in class at times because they were tired, not interested in the class, did not understand the content, did not like the teacher, or were distracted by something else going on in their lives. Nearly all the students in the qualitative interviews discussed that their teachers would have similar perceptions of their engagement.

Table I. Kappa Scores and Percent Agreement for Qualitative Themes.

Theme[a]	Kappa score	Percent agreement
Teacher support leads to engagement	[a]	95
Teacher support is important for disengaged youth	.82	91
Teachers play a role in monitoring engagement	.81	91
Teachers have high expectations	.72	86
Youth did not develop positive relations with teacher	.90	95
Staff support leads to engagement	.49	82
Peer support leads to engagement	.46	91
Peers accept and welcome	.86	95
Peers exclude	.86	95
Large number of peers are disengaged	.35	77
Disengaged peers make you more disengaged	.61	82
Teacher-directed disengaging	.81	91
Relevant and hands-on tasks more engaging	1.00	100
Variety in tasks more engaging	.82	91
Opportunities to choose classes and assignments more engaging	.90	95
Opportunity to give feedback in class more engaging	.68	86
Limited opportunities to have voice at school level	1.00	100
Strict dress code and rules lead to disengagement	1.00	100
Rewards are engaging	.73	86
More engaged when have ability	.36	68
Harder to engage when content is not understood	.51	77
Motivational Mondays engaging	.86	95

[a]Could not be calculated because no variation in Coder 1's codes.

Adolescents' description of their experiences in school supports the tenets of the self-system model. These themes are organized around teacher and staff support, peer support, task, autonomy support, and classroom and school structures. We include counts of the number of interviews that included themes that were mentioned by at least one of raters.

Teacher and staff support. All the adolescents reported that they had developed positive relationships with at least some of their teachers ($N = 22$). They described their teachers as friendly and welcoming, a source of academic and emotional supports, and as advocates for them when they were having difficulty. Developing supportive and high-quality relationships with

teachers helped to support adolescents' need for relatedness and positively influenced their engagement. The following quote illustrates this theme:

> My teachers, they're all fun, they're all amazing. I love them all so much, they encourage me to do my best, even though I feel I can't do it all, my teachers always be like you can do it no matter what. (White 10th-grade female, unevenly engaged group)

Developing positive relationships with teachers appeared to be especially important to the engagement of adolescents who were experiencing academic and personal challenges ($N = 11$). This theme was mentioned by more youth in the "unevenly engaged" ($N = 7$) than the "highly engaged" group ($N = 4$).

> There were some days where I don't really want to come to school, but when I see teachers I know that I have a strong relationship with them so it'll help me out . . . I'll tell them I am having a rough day, and might need a little help during this class and then I'll come to them and they say, "This is what you need to do, if you do this by the end of the class, you will be fine." (African American sixth-grade male, unevenly engaged group)

Another common theme was the important role that teachers played in monitoring adolescents' level of engagement and helping to reengage them when they got off task or were bored ($N = 14$). Teachers did this by providing encouragement, adjusting the task when students appeared to be having difficulty, and/or moving them away from disruptive peers. For example,

> Like when I'm feeling down they might like bring me up. I'd say, I don't feel like I can do this and they say, oh, you can do it, definitely . . . They tap me on the shoulder or they say, "Stay engaged, you can do this." (White sixth-grade male, unevenly engaged group)

Adolescents discussed how most of their teachers had high expectations for their success ($N = 11$). Receiving positive feedback from their teachers about their ability supported their need for competence, which positively influenced their engagement.

Unfortunately, some of adolescents described not being able to develop supportive and positive relationships with at least some of their teachers ($N = 9$). This theme was more common among youth in the "unevenly engaged" group ($N = 6$) than youth in the "highly engaged" group. These students felt that these teachers did not trust or respect them, judged them unfairly, and made assumptions about their achievement and behavior based on other students' behavior in school. Adolescents felt they were treated differently than

other students based on these misconceptions, which did not support their need for relatedness and resulted in these participants feeling alienated and becoming less engaged over time. The following quotes illustrate this theme:

> I don't do good when teachers yell at me . . . So if you yell at me, I basically just going to put my head down . . . They just be frustrated with other students and sometimes take it out on others like me. (African American 11th-grade male, unevenly engaged group)

> They'll get mad when a student gets smart with them too and then the student is always wrong. I don't like that. The teachers just constantly scream for no reason. You're just screaming at the class, what is that going to do? You have to try a different approach. (African American 11th-grade female, unevenly engaged group)

The importance of feeling heard and known by the adults in the school was evident in many of the interviews. For many of the adolescents, staff, including administrators, school counselors, and support personnel, played this role ($N = 19$). This theme was mentioned by all the youth in the "unevenly engaged" group ($N = 11$). With staff, they felt they could joke around, have fun, and really talk to them about their interests and problems. This supported their need for relatedness and resulted in them being more engaged in school. The importance of staff support is illustrated in these two quotes:

> Like some of the counselors, they can adapt to you, they'll like joke around with you, they know about you, they'll be your friends. It's just like knowing that there's someone you can trust at the school. It's pretty good. (African American 10th-grade male, unevenly engaged group)

> The staff is so comforting. They listen to everything. They welcome you in. They respect everything you say . . . I like them more than elementary staff because they are a lot more welcoming and nice. (White sixth-grade male, highly engaged group)

Peer support. The quality of adolescents' relationships with their peers and the extent to which youth felt included and accepted by their classmates was important to their level of engagement. Almost all youth described being more engaged because their peers provided them with both academic and emotional supports ($N = 21$). They talked about how their peers helped them with their homework, explained ideas when they did not understand the content, served as role models, encouraged them when they got off task, and listened to them when they were having personal challenges. For example,

> We just like work with a partner and they basically help you learn even more, like you could learn new strategies from your peers that you didn't even know. (African American sixth-grade female, highly engaged group)

> Most of my friends are big helpers and we like to make each other feel better and work harder . . . we like to help each other accomplish our goals . . . We all have high expectations for each other . . . and we just pick each other back up. (African American sixth-grade male, highly engaged group)

Most adolescents described feeling accepted, welcomed, and respected by their peers at school ($N = 17$), with three students even describing these relationships like a family. Unfortunately, we also heard from a few of the youth that some of their peers excluded them and made fun of them ($N = 5$). This theme was more common among youth in the "unevenly engaged" group ($N = 4$) than youth in the "highly engaged" ($N = 1$) group. In addition, this theme was only mentioned by middle school students. It was most true of the special needs students, lower achieving students, and students who were shy and less socially skilled. Students' reactions to feeling excluded socially are exemplified in the following quotes:

> Some people in 6th grade, they try to talk about me and they think that it hurts my feelings, but it doesn't . . . Like if they say, "You're ugly," I'll be like, "No thank you" and I just do my work. (African American sixth-grade female, unevenly engaged group)

> I feel un-included or I feel like somebody's being mean to me I act down or I don't want to do anything. (White sixth-grade male, unevenly engaged group)

The engagement level of their peers also appeared to influence adolescents' own engagement level. Youth reported that a large number of their peers were disengaged ($N = 20$). Some of the words used to describe these classmates included being loud, rowdy, rude, and not caring about learning. For example, a White sixth-grade female described her classmates:

> I would say in 80% of my classes there is a good portion of kids that just don't pay attention. A lot of them are boys more than girls . . . The boys, they just don't care because they say their parents don't care. They just do whatever they want and they just talk. (unevenly engaged group)

For many of the adolescents, their peers' disengagement made them more disengaged because they found their misbehavior made it difficult for them to stay on task ($N = 16$). This was mentioned by more of the youth in the "unevenly engaged" group ($N = 10$).

Autonomy support. The extent to which the classroom and the school supported adolescents' need for autonomy varied. Participants reported being more engaged in their elective classes and in classes where they got to explore a topic of their choosing ($N = 14$). For example, a biracial sixth-grade male said,

> I like that you get the chance to choose what elective you wanted to be in and like the elective that I picked I liked it, our teacher, he gives us a project and then he lets us do it with a partner and then he gives a certain due date by the time it had to be done. (highly engaged group)

Moreover, many of the youth described how the opportunity to give some feedback on class content and assignments was engaging ($N = 17$). However, although there were opportunities to have voice over the structure and content of classroom-level learning activities, several of the participants had difficulty coming up with opportunities to have a voice and participate in decision making at the school level ($N = 7$). This theme was more prevalent among "unevenly engaged" students ($N = 5$) than "highly engaged" students. In addition, this theme was more prevalent among high school students ($N = 5$) than middle school students ($N = 2$). Two students even questioned whether the school would listen to their input even when they were given a voice.

The school also had very strict disciplinary policies, with even a minor infraction potentially leading to students being suspended. A few of the adolescents complained that the strict dress code and unfair rules limited their opportunity to have a voice ($N = 5$). This theme was more common among "unevenly engaged" students ($N = 4$). In turn, the strict emphasis on control and conformity resulted in these students feeling more disengaged. For example, an African American 11th-grade male said,

> We used to get suspended for wearing hoodies and stuff like that . . . A little too strict because you don't want people to miss their education over a dress code violation . . . When we argue, we get arrested. Just verbally, and you know, I don't think that stuff should happen. (unevenly engaged group)

Self-determination theory assumes that external incentives will result in higher disengagement because individuals are being controlled by external factors as opposed to freely choosing their own values and goals (Deci & Ryan, 1985). In the interviews, we did not find support for this assumption. Instead, many of the youth felt that the opportunity to receive external incentives, including prizes, field trips, and special activities actually led them to be more behaviorally engaged ($N = 11$). They found that these incentives motivated them to exert effort and gave them a goal to work toward.

The instructional environment and type of task also had implications for students' perceptions of autonomy support. The most common instructional mode was teacher-directed instruction, where teachers controlled the pace of lessons and relied heavily on lecturing and worksheets. Some of the adolescents thought these environments were disengaging, resulting in them having more difficulty paying attention and being bored in these classrooms ($N = 10$). The work was often described as repetitive and being irrelevant to their lives outside of the classroom. For example, when asked whether there were aspects of the task or how the teacher is teaching that made him disengaged, a biracial 10th-grade male responded,

> If the teacher's just sitting there telling us to take notes to write down, I will blank out cause that's just having us taking notes for no reason. They could show us how to do this instead of doing notes. (highly engaged group)

In contrast, adolescents felt more engaged when they had the opportunity to do hands-on and personally relevant tasks that were connected to real-world issues ($N = 17$). This theme was more common among youth in the "unevenly engaged" group ($N = 10$). Unfortunately, the more authentic instructional environments were not particularly common, especially in their core academic subjects. Tasks that involved variety, the opportunity to get up and move around, and to be creative were also described as more engaging ($N = 13$).

Classroom and school structures. Students' perceptions of competence influenced their level of engagement. Most adolescents reported that they felt more engaged when they perceived that they were capable and knew how to be successful in the class ($N = 17$). Teachers helped to influence their perceptions of competence by providing positive feedback on their abilities and giving them structured checklists, which outlined the tasks that they needed to accomplish. However, some youth did talk about being more disengaged when they did not understand the content. This appeared to be more common in mathematics and science classes, where some youth talked about not knowing the answer and feeling confused, which led to frustration and a greater likelihood of giving up ($N = 17$). For example,

> I get discouraged easily a little bit . . . I shoot myself down easily. Like when I get a question wrong, I'll be like, "Why didn't you see that, why are you so stupid?" I just get so angry at myself and then I don't want to talk anymore so I'll just put my head down in class. (African American sixth-grade female, unevenly engaged group)

Finally, the school supported students' need for competence through "Motivational Mondays," an all-school assembly where teachers and staff provided words of encouragement to students. "Motivational Mondays" appeared to increase some students' engagement by inspiring them to work harder ($N = 5$). For example, a sixth-grade African American female said,

> On Motivational Monday, she puts up quotes and she tells us to stay true to the quote and if it says, "Work hard and be who you want to be," that makes us work harder. (highly engaged group)

Quantitative Study

Sample

Participants in the quantitative survey portion of this study were recruited from nine schools in the same network of public charter schools that were part of the qualitative interview study. Survey data were collected in the spring of 2017. In order to recruit students for participation in the surveys, we first described the study to teachers and obtained their consent to recruit students in their classroom. Teachers provided letters describing the study and opt-out permission slips to students' families. Then, during regular instructional time, research assistants administered a computer-based survey for students who agreed to participate. All scales included in the student survey were validated through cognitive testing procedures with middle and high school students. The goal of cognitive testing is to examine whether respondents' interpretations of self-report items are consistent with researchers' intended meaning (Karabenick et al., 2007). Student demographic data and course grades were gathered from school records.

The survey sample includes 611 students from sixth (45.2%), eighth (38.3%), and 10th (16.1%) grades. A small proportion of students in 11th grade who took 10th-grade classes also took the survey, representing less than 1% of the sample. The sample has a slightly higher proportion of female (52.4%) than male (47.6%) students. The sample is racially diverse (69.6% African American students, 24.7% White students, 4.6% bi- or multiracial students, and 1.1% students of Other races). Approximately 72% of students received free or reduced-price lunch. An average of 68 students from each of the nine schools participated in the survey.

Measures

School engagement and disengagement. Student engagement and disengagement in school were measured with well-validated self-report scales of

engagement and disengagement (Wang et al., 2017). The Global School Engagement Scale includes 15 items representing behavioral (e.g., "I always try my best in school"), cognitive (e.g., "I contribute to what we are doing in class"), emotional (e.g., "I am proud of my school"), and social (e.g., "I help my peers when they are struggling") engagement in school. The Global School Disengagement Scale includes 15 items capturing behavioral (e.g., "I find reasons to get out of class"), cognitive (e.g., "If I don't understand a task, I give up right away"), emotional (e.g., "I find school to be irritating"), and social (e.g., "I don't have friends in school") disengagement in school. Responses ranged from 1 (*not at all like me*) to 5 (*very much like me*) for all items on both subscales.

Wang and his colleagues (2017) documented support for the construct validity, predictive validity, and measurement invariance of the engagement and disengagement scales in a racially and economically diverse sample of middle and high school students. In particular, they verified the argument that school engagement and disengagement not only are conceptually related to each other but also represent unique and distinct constructs (Wang et al., 2017). School engagement and disengagement are also differentially predictive of academic and behavioral outcomes. In our study, the engagement and disengagement scales had high reliability (range = .83-.88).

School contextual predictors. Based on themes identified in the qualitative interviews, we examined the predictive relations between five contextual predictors: teacher support, peer support, disciplinary harshness, autonomy support, and mastery goal structure and engagement and disengagement. Students reported on their perceived *teacher support* using the scale from H. Patrick, Ryan, and Kaplan (2007). The scale included four items (e.g., "Do teachers respect students' opinions?" α = .87). We measured students' perceptions of *peer support* with items that tapped students' positive interactions with school peers (three items; e.g., "Students in this school are very interested in getting to know other students"; α = .75; Brand, Felner, Shim, Seitsinger, & Dumas, 2003). The measure of *disciplinary harshness* (Brand et al., 2003) captured the extent to which the student viewed school rules as unfair (four items; e.g., "It is easy for a student to get kicked out of class in this school"; α = .67). *Autonomy support* was also a self-report scale (Brand et al., 2003) that tapped students' perceptions that they were given voice and choice at school (three items; e.g., "In this school, students are given the chance to help make decisions"; α = .78). Finally, our measure of *mastery goal structure* asked students about the extent to which their school values individual growth and effort (four items; e.g., "In this school, teachers think how much you learn is more important than test scores or grades"; α = .77;

Midgley et al., 2000). All response scales were on 1- (*never*) to 5-point (*always*) Likert-type scales.

Demographic covariates. The demographic covariates included in the study (i.e., gender, race, free or reduced-price lunch status, and prior grade point average [GPA]) were all collected through school record data. The reference categories for gender, race, and free or reduced-price lunch status were male, African American, and does not receive free or reduced-price lunch, respectively. Prior GPA was measured on a 0 to 4.0 scale.

Analysis

To investigate the relation between the middle school and high school students' perceptions of school context (i.e., teacher support, peer support, disciplinary harshness, autonomy support, and mastery goal structure) and school engagement and disengagement, we used multiple regression with clustering to adjust for the grouping of students in schools and used full information maximum likelihood estimation to handle a small amount of missing data (between 0% and 26% on any given predictor; Baraldi & Enders, 2010). No data were missing on the demographic covariates (i.e., gender, race, or free lunch status) and the school engagement and disengagement outcomes. Moreover, between 1.6% and 2.6% of participants had missing data on the school context predictors and 26.2% of participants had missing data on prior GPA. Data missing on the school context predictors are likely due to a few students not finishing the survey by the end of the designated class period.

Results

Table 2 provides the means, standard deviations, intraclass correlations (ICCs), and correlations for the key covariates, contextual predictors, and school engagement and disengagement outcomes. As expected, prior GPA, teacher support, peer support, and autonomy support were positively correlated with school engagement and negatively correlated with school disengagement. Free lunch status and disciplinary harshness were positively correlated with school disengagement, and disciplinary harshness was negatively correlated with school engagement. The ICC for school engagement was lower than the ICC for school disengagement, suggesting that school membership explains a smaller proportion of the variance in school engagement than school disengagement. The results for the regression analyses are presented in Table 3 and summarized below.

Table 2. Descriptive and Correlational Table.

Variables	M	SD	ICC	1	2	3	4	5	6	7	8	9	10	11
1. Female	—	—	—	—										
2. White	—	—	—	-.05	—									
3. Free lunch	—	—	—	.02	-.30**	—								
4. Prior GPA	3.21	0.65	—	.10*	.31**	-.26**	—							
5. Teacher support	3.35	1.00	—	-.04	.10*	-.04	.16**	—						
6. Peer support	3.23	0.79	—	-.16**	-.01	.01	.10*	.34**	—					
7. Disciplinary harshness	3.60	0.76	—	.06	-.18**	.09*	-.11*	-.28**	-.16**	—				
8. Autonomy support	2.88	0.98	—	-.03	.02	-.03	.14**	.62**	.38**	-.21**	—			
9. Mastery goal structure	3.75	0.91	—	.01	-.04	-.03	.16**	.64**	.32**	-.15**	.54**	—		
10. School engagement	3.62	0.66	.04	.02	-.04	.02	.22**	.48**	.41**	-.12**	.38**	.51**	—	
11. School disengagement	2.30	0.64	.12	.04	-.02	.03	-.25**	-.37**	-.32**	.25**	-.22**	-.34**	-.55**	—

Note. ICC = intraclass correlation; GPA = grade point average.
*p < .05. **p < .01.

Table 3. Summary of Regression Findings Predicting School Engagement and School Disengagement Separately (*N* = 611).

Predictor	School engagement		School disengagement	
	Model 1	Model 2	Model 3	Model 4
	β (*SE*)	β (*SE*)	β (*SE*)	β (*SE*)
Female	.05 (0.03)	.05 (0.03)	.02 (0.03)	.02 (0.03)
White	−.08 (0.07)	−.08 (0.07)	.08 (0.04)*	.08 (0.04)
Free lunch	.04 (0.02)*	.04 (0.02)*	−.01 (0.03)	.01 (0.03)
Prior GPA	.16 (0.05)*	.16 (0.05)**	−.20 (0.08)*	−.22 (0.09)**
Teacher support	.22 (0.05)**	.22 (0.05)**	−.24 (0.03)**	−.23 (0.03)**
Peer support	.25 (0.02)**	.25 (0.02)**	−.20 (0.05)**	−.20 (0.05)**
Disciplinary harshness	.02 (0.03)	.02 (0.03)	.16 (0.05)**	.15 (0.06)**
Autonomy support	−.02 (0.07)	−.02 (0.07)	.15 (0.06)**	.15 (0.06)*
Mastery goal structure	.27 (0.07)**	.27 (0.07)**	−.15 (0.04)**	−.15 (0.05)**
Prior GPA × Autonomy support		.01 (0.04)		−.10 (0.04)*
R^2	.37 (0.05)**	.37 (0.05)**	.26 (0.06)**	.26 (0.06)**

Note. All coefficients are standardized. GPA = grade point average.
*p < .05. **p < .01.

Teacher support. In line with findings from the qualitative study, teacher support was positively associated with school engagement (β = .22, p < .01). Similarly, students who perceived greater teacher support reported lower levels of disengagement (β = −.24, p < .01).

Peer support. Students who perceived stronger peer support tended to report higher levels of school engagement (β = .25, p < .01) and lower levels of school disengagement (β = −.20, p < .01). These results confirm our hypotheses derived from our qualitative study.

Disciplinary harshness. Disciplinary harshness was not associated with engagement (β = .02, p = ns). However, students who reported greater disciplinary harshness did report greater levels of disengagement (β = .16, p < .01). These findings are in line with what we would expect based on our qualitative findings.

Autonomy support. Counter to our qualitative findings, autonomy support was not significantly related to school engagement (β = −.02, p = ns). However, students who perceived greater autonomy support reported higher levels of school disengagement (β = .15, p < .01).
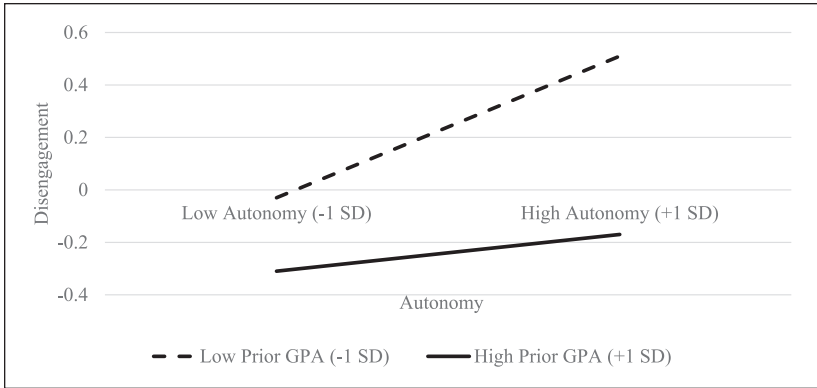
Figure 1. The interaction effect of autonomy by prior GPA in predicting school disengagement.
Note. GPA = grade point average.

This finding runs counter to the self-system model and findings from qualitative interviews. However, prior research has found that the benefits and potential downsides of autonomy at school may vary as a function of students' achievement level (B. C. Patrick, Skinner, & Connell, 1993; Wang, 2012). Given our unexpected result, we sought to test whether this finding could be better understood when examining prior achievement as a moderator. To explore this hypothesis, we ran two additional models testing the interaction effect between autonomy support and prior GPA. The interaction effect was not significant for the school engagement outcome, but notably, was significant for the school disengagement outcome—that is, the analysis with the initial counterintuitive result. As shown in Figure 1, students with low prior GPA reported greater school disengagement when they perceived their environments to be more autonomy supportive. However, autonomy support did not appear to make a difference for students who were high on GPA.

Mastery goal structure. As expected, mastery goal structure was significantly related to both engagement and disengagement. Students who reported a stronger mastery goal structure reported greater engagement ($\beta = .27$, $p < .01$) and less disengagement ($\beta = -.15$, $p < .01$).

Discussion of Qualitative and Quantitative Findings

This study contributes to our understanding of student engagement and disengagement by using mixed methods to examine the motivational and contextual

factors that can explain variations in engagement and disengagement among urban youth. Although mixed approaches are increasingly being advocated as a means to understand complex developmental and educational concepts (R. B. Johnson & Onwuegbuzie, 2004; Tolan & Deutsch, 2015; Yoshikawa, Weisner, Kalil, & Way, 2013), there are still limited examples of the integration of these approaches in the literature. Combining qualitative and quantitative methods enhanced the validity of our findings by (a) triangulating results across different methods that examine the same phenomenon, (b) expanding and elaborating on findings, and (c) uncovering contradictory findings that resulted from the use of different methods (Greene, Caracelli, & Graham, 1989; Tolan & Deutsch, 2015).

Contrary to the stereotypes of many urban schools, we did find evidence in both the interview and survey results to show how schools are providing many developmental supports to meet adolescents' need for relatedness, autonomy, and competence. Participants described developing positive relationships with at least some of the adults and peers in their school, having some opportunities to make choices about how and what to learn, and receiving positive feedback and supports for competence. However, the interviews also illustrate some of the challenges facing ethnically diverse youth attending urban schools. They were more disengaged when their teachers did not respect them, when their peers were off task, when the curriculum was boring and irrelevant, and when stringent disciplinary rules limited their autonomy.

The quantitative findings align with the interview findings to support the tenets of the self-system theory, though there were a few differences in the strength and pattern of relations in the engagement and disengagement models. In both models, support from teachers and peers were predictive of engagement and disengagement in the expected direction. In addition, mastery goal structure was more strongly associated with engagement than with disengagement. Finally, disciplinary harshness and autonomy support were only related to disengagement. These differential findings highlight the importance of considering engagement and disengagement as separate and distinct constructs.

Teacher and Peer Support

Both the quantitative and qualitative findings demonstrate the important role that teachers and peers play in engagement. There has been a tendency, especially in urban schools, to emphasize academic dimensions and neglect the role that relationships play in influencing adolescents' engagement. Consistent with prior research, the quality of teacher-student relationship was positively associated with engagement and negatively associated with disengagement

(Klem & Connell, 2004; Martin & Dowson, 2009). Positive support from teachers may help create an environment where students feel safe to take chances, explore, and learn. Students can draw on these supportive relationships when they encounter difficulties in school, helping them to reengage with challenging tasks and develop motivational resilience (Skinner & Pitzer, 2012). Our interviews also provided insight into the different mechanisms by which teachers can increase engagement. Participants described how their teachers provided social support, offered encouragement, had high expectations, created a welcoming environment, and scaffolded learning. These interviews also reveal how engagement is a bidirectional process between teachers and students. Participants described how their teachers made adjustment to their instruction and provided additional encouragement in responses to declines in engagement.

Although participants had developed positive relationships with adults at their school, some did describe negative interactions with at least some of their teachers. They felt some of their teachers were mean and did not trust or listen to them, often making unfair assumptions about their behavior based on stereotypes of urban youth. Feeling respected by teachers can go a long way in supporting urban school students' engagement, especially for students of color (Noguera, 2003b). In contrast, when adolescents feel disrespected by their teachers and their need for relatedness is not being met, they may actually become more defiant and disruptive (Wallace & Chuon, 2014).

The interviews also revealed the potential role that noninstructional staff play in engaging adolescents. To date, we know very little about how other school personnel influence student engagement. Our results suggest that the role that counselors, administrators, and other support personnel play in engaging youth is an area ripe for research. Many of the youth developed strong and trusting relationships with these adults, and talked about the importance of feeling heard and understood by the staff. Support from staff members appeared to be especially important to adolescents who were having academic or personal struggles.

Peer relationships take on an increasing importance in adolescence as youth spend more time with their peers and rely on them more for supports. Consistent with prior research (Juvonen et al., 2012; Wang et al., 2018; Wenztel, 2009), positive peer relationships were predictive of higher engagement. The interview findings revealed the different mechanisms by which peers may positively influence engagement, including reinforcing norms and values, redirecting youth when they get off task, modeling engagement, and providing academic and emotional support (Ryan, 2000). Most adolescents also described a welcoming and caring environment at their schools, and reported that they felt accepted and supported by their peers. This finding

supports previous research showing that student engagement is optimized when students' needs for belonging are met by the school environment (Voelkl, 2012).

At a time when the need for belonging becomes increasingly important, five of the middle school youth did report experiencing very different social dynamics. Unfortunately, they described being made fun of and excluded by their peers, often because of their ability, social difficulties, or their appearance. Survey findings provided additional evidence of the negative relations between poor peer relationships and engagement. Consistent with prior research, students who felt that they had not developed positive relationships with their peers reported being less engaged (Juvonen et al., 2012). Students with poor peer relationships have been found to participate less in classroom activities, have greater school avoidance, and develop less positive attitudes toward school, which can lead them to seek the company of other disaffected peers (Furrer et al., 2014; Juvonen et al., 2012).

Autonomy Support

The use of mixed methods did reveal a mixed pattern of findings regarding the influence of autonomy support on adolescents' engagement. As is common in many urban schools, the school relied on teacher-directed methods and strict disciplinary rules that emphasize punishment as a means to control the behavior of students (Noguera, 2003a).

The assumption is that these policies are necessary to limit disruptions and keep all the students engaged. However, both the qualitative and quantitative findings reveal that this assumption is misguided. In the interviews, some adolescents felt the strict policies limited their voice and led them to feeling more disengaged. In addition, students' perceptions that the rules were strict and unfair were related to higher disengagement (Fredricks, Blumenfeld, & Paris, 2004; S. L. Johnson, 2009). Unfortunately, there is evidence that strict disciplinary practices are used more often for low-income youth of color, leading to lower achievement, higher disengagement, and higher dropout rates (Gregory, Skiba, & Noguera, 2010; Okonofua et al., 2016).

Interestingly, the quantitative and qualitative results led to different conclusions about the influence of opportunities to have a voice in decision making on engagement. On the one hand, adolescents discussed being more engaged when they could make some choices about both the content and structure of learning. However, contrary to prior literature (Reeve et al., 2004), autonomy support was actually predictive of higher disengagement in the quantitative analyses. Follow-up analyses indicated that autonomy support was detrimental for students who had lower GPA, making them more

disengaged, but not related to disengagement for students who were high on GPA. High-achieving students may respond more favorably to autonomy (Church, Elliot, & Gable, 2001), while lower achieving students may need more structure and scaffolding from adults. Because the school had strict disciplinary policies, the opportunities for autonomy were limited. It is also possible that when lower achieving students in the school perceived greater autonomy, they felt they could relax and not put in as much effort. This finding is consistent with other research showing that the relation between autonomy support and learning motivation varies depending on students' achievement level (B. C. Patrick et al., 1993; Wang, 2012). Future research should look at different dimensions of autonomy support to understand what facets help, versus undermine, engagement, and whether there are differences in how high- and low-achieving students perceive this construct.

There has been a concern about the potential negative effects of rewards on motivation and engagement, especially when these rewards are viewed as coercive and controlling (Deci & Ryan, 2012). However, it is also important to acknowledge the positive motivational aspects that students acknowledged regarding the use of rewards in the classroom. Students discussed that they thought that rewards and external incentives motivated them and encouraged them to work harder. This finding fits with the tenets of self-determination theory, in that, rewards that are viewed as instrumental can foster internalization and lead to higher engagement (Ryan & Deci, 2000). These results suggest that rewards may be an effective strategy to initially engage youth behaviorally, especially those who have traditionally been reluctant learners. However, educators still need to consider the long-term implications of this reward structure and strategies for sustaining learning and engagement when the rewards are removed.

Finally, the interviews revealed the influence that instructional choices have on students' perceptions of autonomy and subsequent engagement. In these classrooms, instruction tended to be very traditional and teacher centered, with teachers primarily lecturing or students working individually on seatwork. This instructional model assumes that the teacher is the sole authority and takes primary responsibility for structuring students' learning experiences (Stein, Kinder, Silbert, & Carnine, 2005). Unfortunately, in the interviews, students discussed how these learning environments were disengaging. In contrast, adolescents described higher engagement when they took greater responsibility for their learning and when they perceived the topics were relevant to their lives. To increase engagement, we need to support students' autonomy by positioning them as active creators of their knowledge rather than recipients of others' knowledge. This finding aligns with prior research suggesting that engagement is higher when teachers use personally

relevant and meaningful tasks, and find ways to incorporate students' preferences, interests, and choices into lessons (Reeve & Jang, 2006; Reeve et al., 2004).

Classroom and School Structures

Both the qualitative and quantitative findings revealed how classroom and school structures related positively to students' perceptions of competence and engagement. Consistent with prior research (Urdan & Schoenfelder, 2006; Wang & Holcombe, 2010), students' perceptions that teachers endorse mastery goals were predictive of higher engagement. A focus on mastery goals provides more opportunities for students to feel successful because these environments emphasize individual improvement and effort. The interviews also provided insight into the mechanisms by which teachers and schools can support students' need for competence and ultimately increase engagement. Adolescents felt teachers supported their need for competence by holding high expectations, providing positive encouragement, and providing structured checklists to keep track of what they need to do to be successful in the class.

Limitations and Future Research Directions

The results of this study need to be interpreted in light of the following methodological decisions related to the qualitative portion of the study. First, to select students to interview, we asked school administrators to identify adolescents who varied in their level of engagement. The administrative and teaching staff at both schools is predominately White. We do not know what criteria administrators used to identify disengaged and highly engaged students, whether administrators selected students in commensurate ways, and how the race of the administrative and teaching staff may have played a role in the selection of students. However, we do know that students who were interviewed generally felt their teachers would describe their engagement in similar ways as they described themselves. Second, only those students who returned their consent form were included in the interview sample, resulting in an interview sample of predominately sixth and 10th graders. This has implications for the generalizability of our findings to students at other grade levels, though it is important to note that the themes were generally similar for middle and high school students. Third, our findings may be shaped by the characteristics of the urban charter schools from which participants in the interview and survey study were selected. Like many other charter schools, this district is devoted to using innovative instructional practices and

providing a wider range of individualized support systems for students than are offered in traditional public schools. It will be important to examine whether the pattern of findings holds across a diverse set of school contexts. Fourth, three White females interviewed a sample of predominately African American students. Although these interviewers have extensive experience interviewing diverse adolescents, it is important to acknowledge that compatibility of interviewees by race and gender may enhance the validity of findings (Schaeffer, 1980). The confidence in our qualitative findings also needs to be interpreted in light of interrater reliability. Five out of 22 themes identified had kappa statistics in the fair-to-moderate agreement range (Landis & Koch, 1977). Four of these lower kappa statistics related to themes about the impact of socializers' support and ability on engagement, which may reflect variations in how raters interpreted these constructs. Finally, we made the decision to not include interview data on the influence of family and out-of-school activities on engagement because the data were beyond the scope of this article. In addition, the depth and the quality of this information varied in our interviews due to time constraints. Finally, relatively few of the youth were involved in out-of-school activities. This is a limitation of this article, and should be explored in greater depth in future research.

Our findings also have to be interpreted in light of the methodological decisions related to the quantitative portion of the study. First, the constructs we chose to test in the quantitative analyses were part of a larger longitudinal study. As a result, the alignment of constructs was not perfectly parallel. One example of this is the analysis regarding the influence of autonomy support on engagement. The qualitative findings included opportunities for autonomy at the class level such as choosing electives and providing feedback on course materials, while our autonomy support measure in the quantitative study was about making decisions at the school level. Second, we were unable to test all the hypotheses that emerged from the qualitative interviews in the quantitative analyses because survey items assessing those constructs (e.g., the type of instruction, staff support) were not included in data collection in the spring of 2017. An important next step is to engage in construct development based on the qualitative findings. Examples of such questions to explore are whether particular types of instruction may be engaging for students and the impact of support staff on engagement. Third, our survey data were self-report and cross sectional. Future research should draw on data from multiple reporters (e.g., students, teachers, and observers) and use longitudinal designs to better assess the relationships between context and engagement over time. Finally, we only focused on the relation between contextual factors and a global measure of engagement and disengagement, and explored the moderating effect of GPA on the relationship between autonomy

support and engagement and disengagement. Future research should explore whether contextual factors are differently associated with the different types of engagement, and if other moderators, such as race and free/reduced-price lunch, play a role in the relationship between autonomy support and engagement and disengagement.

Conclusion and Implications

The findings of this study have important implications for strategies to increase the engagement of urban adolescents. Findings from both the qualitative and quantitative analyses demonstrate the key role that high-quality relationships with adults may play in increasing the engagement of both White and African American adolescents. We need to move beyond the assumption that teaching is just about content but also focus on pedagogy and practices that support students' need for relatedness. Moreover, we need to train teachers on how to support and build relationships, especially with our most disengaged students. This is important because research suggests that disengaged students benefit most from developing positive relationships with their teachers, but are least likely to get this support (Baker, Grant, & Morlock, 2008). Unsupportive interactions between a teacher and student make it more likely a student will perceive himself or herself as unwelcome, incompetent, and pressured. In turn, these negative interactions can lead to further withdrawal of teacher support (Skinner & Pitzer, 2012).

Our results highlight the need to create a more welcoming community for all our students, especially those who feel most marginalized by their peers. A handful of the middle school youth described being excluded and bullied by their peers because they were different. Teachers play a key role in creating a sense of community, and identifying and supporting those students who are most at risk of developing poor relationships with their peers (Fredricks, 2014; Furrer et al., 2014). Teachers can support the development of positive peer dynamics by modeling appropriate social interactions, providing meaningful opportunities for positive social interactions, developing personal relationships with all students, and seeking out additional supports for students who are having difficulty with social interactions (Fredricks, 2014).

Our findings also have implications for supporting autonomy. There is a critical need to counter urban teachers' and staff's stereotypes about youth's behaviors and the need for social control. One concern is that biased-disciplinary practices, which disproportionally affect low-income African American males, are a way for some school administrators to push out students of color, denying these young people the opportunity to learn, and perpetuating racial and class stratification in the larger society (Fine, 1991;

Gregory et al., 2010; Okonofua et al., 2016). The reality is that the emphasis on social control through disciplinary and instructional practices can backfire and lead adolescents to become more disruptive as a form of resistance. Instead, our findings show that urban youth want to be heard, known, and truly respected by the adults at their school. These findings are consistent with prior research on the importance of student voice, which show that taking students' perspectives seriously is a method of reengaging students and strengthening their attachment to school (Wallace & Chhuon, 2004; Mitra, 2004, 2009) Another way to increase autonomy is to increase the opportunities for personalized and student-centered learning, so that students can feel a greater connection to what they are learning. Finally, the use of culturally responsive teaching, a pedagogy that recognizes the importance of including ethnically and culturally diverse students' experiences and references in all aspects of learning, is another way to support student autonomy (Gay, 2010; Ladson-Billing, 1994). Such practices have been found to foster developmentally informed relationships between students and teachers (Gay, 2010).

Finally, our findings have implications for supporting students' need for competence. Teachers can support competence by creating school environments that emphasize and support individual mastery and improvement as opposed to just emphasizing competition and social comparison. Furthermore, teachers can also promote students' competence for learning by providing them with positive feedback, encouragement, and tools that will promote academic success. When students feel that their efforts and abilities are recognized, they will be more likely to put forth effort, persist when they are having difficulties, and use cognitive strategies that contribute to academic success.

Declaration of Conflicting Interests

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References

Baker, J. A., Grant, S., & Morlock, L. (2008). The teacher-student relationship as a development context for children with externalizing or internalizing behavioral problems. *School Psychology Quarterly*, *23*, 3-15. doi:10.1037/1045-3830.23.1.3

Balfanz, R., Herzog, L., & Mac Iver, D. (2007). Preventing student disengagement and keeping students on the graduation path in the urban middle grade schools: Early identification and effective interventions. *Educational Psychologist*, *42*, 223-235. doi.org/10.1080/00461520701621079

Baraldi, A. N., & Enders, C. K. (2010). An introduction to modern missing data analyses. *Journal of School Psychology*, *48*, 5-37. doi:10.1016/j.jsp.2009.10.001

Benner, A. D., & Graham, S. (2009). The transition to high school as a developmental process among multiethnic urban youth. *Child Development*, *80*, 356-376. doi:10.1111/j.1467-8624.2009.01265.x

Berends, M. (2015). Sociology and school choice: What we know after two decades of charter schools. *Annual Review of Sociology*, *41*, 159-180.

Betts, J. R., & Tang, E. Y. (2016). *A metanalysis of the literature on the effects of charter schools on engagement*. Paper given at the SREE National Conference, Washington, DC.

Brand, S., Felner, R., Shim, M., Seitsinger, A., & Dumas, T. (2003). Middle school improvement and reform: Development and validation of a school-level assessment of climate, cultural pluralism, and school safety. *Journal of Educational Psychology*, *95*, 570-588. doi:10.1037/0022-0663.95.3.570

Brewster, A. B., & Bowen, G. L. (2004). Teacher support and the school engagement of Latino middle and high school students at risk of school failure. *Child and Adolescent Social Work Journal*, *21*, 47-67. doi:10.1023/B:CASW.0000012348.83939.6b

Christenson, S., Reschly, A. & Wylie C. (Eds.). (2012). *Handbook of research on student engagement*. New York: Springer.

Church, M., Elliot, A., & Gable, S. (2001). Perceptions of classroom environment, achievement goals, and achievement outcomes. *Journal of Educational Psychology*, *93*, 43-54. doi:10.1037/0022-0663.93.1.43

Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. Gunnar & L. A. Sroufe (Eds.), *Minnesota symposium on child psychology* (Vol. 23) (pp. 43-77). Chicago, IL: The University of Chicago.

Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003) Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209-240). Thousand Oaks, CA: SAGE.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation (Oxford library of psychology)* (pp. 85-107). New York, NY: Oxford University Press.

Dotterer, A. M., & Wehrspann, E. (2016). Parent involvement and academic outcomes among urban adolescents: Examining the role of school engagement. *Educational Psychology*, *36*, 812-830. doi:10.1080/01443410.2015.1099617

Duncan, G. J., & Murnane, R. (Eds.). (2014). *Withering opportunity: Rising inequality, schools, and children's life chances*. New York, NY: Russell Sage Foundation.

Eccles, J. S., & Roeser, R. W. (2013). Schools, academic motivation, and stage-environment fit. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 125-153). Hoboken, NJ: John Wiley. doi:10.1002/9780471726746.ch5.

Erickson, K., & Stull, D. (1998). *Doing team ethnography: Warning and advice*. Thousand Oaks, CA: SAGE.

Fine, M. (1991). *Framing dropouts: Notes on the politics of an urban school*. Albany: State University of New York Press.

Fredricks, J. A. (2014). *Eight myths of student disengagement: Creating classrooms of deep learning*. Thousand Oaks, CA: Corwin Press.

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*, 59-109. doi:10.3102/00346543074001059

Fredricks, J. A., Filsecker, M., & Lawson, M. (2016). Student engagement and learning: Theoretical and methodological advances. *Learning and Instruction*, *43*, 1-84.

Fredricks, J. A., Wang, M., Schall, J., Hokfkens, T., Snug, H., Parr, A., & Allerton, J. (2016). Using qualitative methods to develop a survey of math and science engagement. *Learning and Instruction*, *43*, 5-15. doi:10.1016/j.learninstruc.2016.01.009

Furrer, C. J., Skinner, E. A., & Pitzer, J. R. (2014). The influence of teacher and peer relationships on students' classroom engagement and everyday resilience. In D. J. Shernoff & J. Bempechat (Eds.), *National society for the study of education yearbook: Engaging youth in schools: Empirically-based models to guide future innovations* (Vol. 113, pp. 101-123). New York, NY: Columbia University.

Garcia-Reid, P., Reid, R. J., & Peterson, N. A. (2005). School engagement among Latino youth in an urban middle school context valuing the role of social support. *Education and Urban Society*, *37*, 257-275. doi:10.1177/0013124505275534

Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). New York, NY: Teachers College Press.

Gottfredson, G. D., Gottfredson, D. C., Payne, A. A., & Gottfredson, N. C. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention in schools. *Journal of Research in Crime and Delinquency*, *42*, 412-444. doi:10.1177/0022427804271931

Greene, J. C., Caracelli, V. J., & Graham, W. (1989). Toward a conceptual framework for mixed methods evaluation design. *Educational Evaluation and Policy Analysis*, *11*, 255-274. doi.org/10.3102/01623737011003255

Gregory, A., Skiba, R. J., & Noguera, P. (2010). The achievement gap and the discipline gap: Two sides of the same coin. *Educational Research*, *39*, 59-68.

Heppen, J. B,. & Therriault, S. B., (2008). *Deveoping early warning systems to identify potential high school dropouts*. Washington, DC: The National High School Center at the American Institutes for Research.

Jang, H., Kim, E. J., & Reeve, J. (2016). Why students become more engaged or more disengaged during the semester: A self-determination theory dual-process model. *Learning and Instruction*, *43*, 27-38. doi:10.1016/j.learninstruc.2016.01.002

Janosz, M., Archambault, I., Morizot, J., & Pagani, L. S. (2008). School engagement trajectories and their differential predictive relations to dropout. *Journal of Social Issues*, *64*, 21-40. doi:10.1111/j.1540-4560.2008.00546.x

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, *33*, 14-26. doi:10.3102/0013189X033007014

Johnson, S. L. (2009). Improving the school environment to reduce school violence: A review of the literature. *Journal of School Health*, *79*, 451-465. doi:10.1111/j.1746-1561.2009.00435.x

Juvonen, J., Espinosa, C., & Knifsend, C. A. (2012). The role of peer relationships on academic and extracurricular engagement in school. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research in student engagement* (pp. 387-402). London, England: Springer.

Karabenick, S. A., Woolley, M. E., Friedel, J. M., Ammon, B. V., Blazevski, J., Bonney, C. R., . . . Kelly, K. L. (2007). Cognitive processing of self-report items in educational research: Do they think what we mean? *Educational Psychologist*, *42*, 139-151. doi:10.1080/00461520701416231

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, *74*, 262-273. doi:10.1111/j.1746-1561.2004.tb08283.x

Ladd, G. W., Ettekal, I., & Kochenderfer-Ladd, B. (2017). Peer victimization trajectories from kindergarten through high school: Differential pathways for children's school engagement and achievement? *Journal of Educational Psychology*, *109*, 826-841. doi:10.1037/edu0000177

Ladson-Billing, G. (1994). *The dreamkeepers*. San Francisco, CA: Jossey-Bass.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometric*, *33*, 159-174. doi:10.2307/2529310

Langhout, R. D., & Mitchell, C. A. (2008). Engaging contexts: Drawing the link between student and teacher experiences and the hidden curriculum. *Journal of Community & Applied Social Psychology*, *18*, 593-614. doi:10.1111/j.1746-1561.2004.tb08283.x

Li, Y., & Lerner, R. M. (2011). Trajectories of school engagement during adolescence: Implications for grades, depression, delinquency, and substance use. *Developmental Psychology*, *47*, 233-247. doi:10.1037/a0021307

Martin, J. A., & Dowson, M. (2009). Interpersonal relationships, motivation, engagement, and achievement: Yields for theory, current issues, and educational practice. *Review of Educational Research*, *79*, 327-365. doi:10.3102/0034654308325583

Midgley, C., Maehr, M. L., Hruda, L. A., Anderman, E., Anderman, L., Freeman, K. E., . . . Urdan, T. (2000). *Manual for the patterns of adaptive learning scale*. Ann Arbor: University of Michigan.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: SAGE.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2013). *Qualitative data analysis* (3rd ed.). Thousand Oaks, CA: SAGE.

Mitra, D. (2004). The significance of students: Can increasing "student voice" in schools lead to gains in youth development? *Teachers College Record*, *106*, 651-688. doi:10.1111/j.1467-9620.2004.00354.x

Mitra, D. (2009). Collaborating with students: Building youth-adult partnerships in school. *American Journal of Education*, *115*, 407-436. doi:10.1086/597488

Murray, C. (2009). Parent and teacher relationships as predictors of school engagement and functioning among low-income urban youth. *Journal of Early Adolescence*, *29*, 376-404. doi:10.1177/0272431608322940

National Center for Educational Statistics. (2016). *Status and trends in the education of racial and ethnic groups, 2016*. Retrieved from http://nces.ed.gov/pubs 2016/2016007.pdf

National Research Council. (2004). *Engaging schools: Fostering high school students' motivation to learn*. Washington, DC: National Academy Press.

Niemiec, C., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, *7*, 133-144.

Noguera, P. (2003a). Schools, prisons, and the social implications of punishment: Rethinking disciplinary practices. *Theory Into Practice*, *42*, 341-350. doi:10.1207/ s15430421tip4204_12

Noguera, P. (2003b). The trouble with black boys: The role and influence of environmental and cultural factors on the academic performance of African American males. *Urban Education*, *38*, 431-459. doi:10.1177/0042085903038004005

Okonofua, J. A., Walton, G. M., & Eberhardt, J. L. (2016). A vicious cycle: A social-psychological account of extreme racial disparities in school discipline. *Perspectives on Psychological Science*, *11*, 381-398. doi:10.1177/1745691616635592

Osborne, J. W., & Walker, C. (2006). Stereotype threat, identification with academics, and withdrawal from school: Why the most successful students of colour might be most likely to withdraw. *Educational Psychology*, *26*, 563-577. doi: 10.1080/01443410500342518

Patrick, B. C., Skinner, E. A., & Connell, J. P. (1993). What motivates children's behavior and emotion? Joint effects of perceived control and autonomy in the academic domain. *Journal of Personality and Social Psychology*, *65*, 781-791. doi:10.1037/0022-3514.65.4.781

Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*, *99*, 83-98. doi:10.1037/0022-0663.99.1.83

Patall, E. A., Steingut, R. R., Steingut, Trimble, S. S., & Pituch, K. A. (2016). Daily interest, engagement, and autonomy support in the high school science classroom. *Contemporary Educational Psychology*, *46*, 180-194. http://dx.doi.org/10.1016/j. cedpsych.2016.06.002

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: SAGE.

Reardon, S. F. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In R. Murnane & G. Duncan (Eds.), *Withering opportunity: Rising inequality, schools, and children's life chances* (pp. 91-116). New York, NY: Russell Sage Foundation.

Reeve, J. (2012). A self-determination theory perspective on student engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 149-172). New York, NY: Springer Science & Business Media. doi:10.1007/978-1-4614-2018-7_7.

Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology*, *105*, 579-595. doi:10.1037/a0032690

Reeve, J., & Jang, H. (2006). What teachers say and do to support students' autonomy during a learning activity. *Journal of Educational Psychology*, *98*, 209-218. doi:10.1037/0022-0663.98.1.209

Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing high school students' engagement by increasing their teachers' autonomy support. *Motivation and Emotion*, *28*, 147-169. doi:10.1023/B:MOEM.0000032312.95499.6f

Rumberger, R. (2011). *Dropping out: Why students drop out of high school and what can be done about it*. Cambridge, MA: Harvard University Press.

Ryan, A. M. (2000). Peer groups as a context for the socialization of adolescents' motivation, engagement, and achievement in school. *Educational Psychologist*, *35*, 101-111. doi:10.1207/S15326985EP3502_4

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68-78. http://dx.doi.org/10.1037/0003-066X.55.1.68

Saldaña, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks: SAGE.

Salmela-Aro, K., & Upadyaya, K. (2014). School burnout and engagement in the context of a demands-resources model. *British Journal of Educational Psychology*, *84*, 137-151.

Schaeffer, N. (1980). Evaluating race-of-interviewer effects in a national survey. *Sociological Methods and Research*, *8*, 400-419.

Skinner, E. A., Furrer, C. J., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational Psychology*, *100*, 765-781. doi:10.1037/a0012840

Skinner, E. A., Kindermann, T. A., Connell, J. P., & Wellborn, J. G. (2009). Engagement as an organizational construct in the dynamics of motivational development. In K. Wentzel & A. Wigfield (Eds.), *Handbook of motivation in school* (pp. 223-245). Malwah, NJ: Lawrence Erlbaum.

Skinner, E. A., & Pitzer, J. R. (2012). Developmental dynamics of student engagement, coping, and everyday resilience. In S.L. Christenson, A.L. Reschly, &

C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 21-44). New York, NY: Springer.

Stein, M., Kinder, D., Silbert, J., & Carnine, D. W. (2005). *Designing effective math instruction: A direct instruction approach* (4th ed.). New York, NY: Prentice Hall.

Tolan, P. H., & Deutsch, N. L. (2015). Mixed methods in developmental science. In W.F. Overton, & P. C. Molenaar (Eds.), *Handbook of child psychology and developmental science. Vol. 1: Theory and method* (7th ed., Vol. 1, pp. 713-757). New York, NY: John Wiley.

Urdan, T., & Schoenfelder, E. (2006). Classroom effects on student motivation: Goal structures, social relationships, and competence beliefs. *Journal of School Psychology*, *44*, 331-349. doi:10.1016/j.jsp.2006.04.003

Voelkl, K. E. (2012). School identification. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 193-218). New York, NY: Springer.

Wallace, T. L., & Chhuon, V. (2014). Proximal processes in urban classrooms: Engagement and disaffection in urban youth of color. *American Educational Research Journal*, *51*, 937-973. doi:10.3102/0002831214531324

Wang, M. T. (2012). Educational and career interests in math: A longitudinal examination of the links between classroom environment, motivational beliefs, and interests. *Developmental Psychology*, *48*, 1643-1657. doi:10.1037/a0027247

Wang, M. T., & Degol, J. L. (2014). Staying engaged: Knowledge and research needs in student engagement. *Child Development Perspectives*, *8*, 137-143.

Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review*, *28*, 315-352. doi:10.1007/s10648-015-9319-1

Wang, M. T., & Eccles, J. S. (2012a). Adolescent behavioral, emotional, and cognitive engagement trajectories in school and their differential relations to educational success. *Journal of Research on Adolescence*, *22*, 31-39. doi:10.1111/j.1532-7795.2011.00753.x

Wang, M. T., & Eccles, J. S. (2012b). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*, *83*, 877-895. doi:10.1111/j.1467-8624.2012.01745.x

Wang, M. T., & Eccles, J. S. (2013). School context, achievement motivation, and academic engagement: A longitudinal study of school engagement using a multidimensional perspective. *Learning and Instruction*, *28*, 12-23. doi:10.1016/j.learninstruc.2013.04.002

Wang, M. T., & Fredricks, J. A. (2014). The reciprocal links between school engagement and youth problem behavior during adolescence. *Child Development*, *85*, 722-737. doi:10.1111/cdev.12138

Wang, M. T., Fredricks, J. A., Ye, F., Hofkens, T., & Schall, J. (2017). Conceptualization and assessment of adolescents' engagement and disengagement in school: A multidimensional perspective. *European Journal of Psychological Assessment*, *1*, 13-24.

Wang, M. T., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. *American Educational Research Journal*, *47*, 633-662. doi:10.3102/0002831209361209

Wang, M. T., Kiuru, N., Degol, J. L., & Salmela-Aro, K. (2018). Friends, academic achievement, and school engagement during adolescence: A social network approach to peer influence and selection effects. *Learning and Instruction*, *58*, 148-160.

Wang, M. T., & Peck, S. (2013). Adolescent educational success and mental health vary across school engagement profiles. *Developmental Psychology*, *49*, 1266-1276.

Wigfield, A., Eccles, J., Fredricks, J., Simpkins, S., Roeser, R., & Schiefele, U. (2015). Development of achievement motivation and engagement. In R. Lerner (Series Ed.) & C. Garcia Coll and M. Lamb (Volume Eds.), *Handbook of child psychology, 7th Ed. Vol. 3, Social, and emotional development* (pp. 657-699).

Wentzel, K. R. (2009). Peer relationships and motivation at school. In K. Rubin, W. Bukowski, & B. Laursen (Eds.), *Handbook on peer relationships* (pp. 531-547). New York, NY: Guilford.

Yoshikawa, H., Weisner, T., Kalil, A., & Way, N. (2013). Mixing qualitative and quantitative research in developmental science: Uses and methodological choices. *Qualitative Psychology*, *1*, 3-18. doi:10.1037/2326-3598.1.S.3

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