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Beyond Classroom Academics: A School-Wide and Multi-Contextual Perspective on Student Engagement in School

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Abstract

School engagement researchers have historically focused on academic engagement or academic-related activities. Although academic engagement is vital to adolescents' educational success, school is a complex developmental context in which adolescents also engage in social interactions while exploring their interests and developing competencies. In this article, school engagement is re-conceptualized as a multi-contextual construct that includes both academic and social contexts of school. The authors begin by describing how the characteristics of these contexts provide the opportunities and resources for adolescents to engage in academic learning and social interactions throughout school. Motivational theories are then used as an operational framework for understanding how adolescents become engaged in school, which is followed by a discussion about how adolescents' academic and social engagement interact to shape their academic achievement. The article concludes with implications for practice and future research.

Keywords

school engagement; academic achievement; academic engagement; social engagement; adolescent development

Introduction

School engagement has taken a prominent place in recent psychological and educational research because of its potential for addressing poor academic achievement, student misbehavior, and school dropout (Archambault et al., 2009; Li & Lerner, 2011; Wang & Peck, 2013). Broadly, the term “school engagement” refers to the quantity and quality of students' involvement in school and their interactions within school activities (Skinner & Pitzer, 2012). In addition, school engagement is multi-dimensional, consisting of behavioral, affective, and cognitive components (Fredricks, Blumenfeld, & Paris, 2004) as well as dynamic and reciprocal processes that influence and are influenced by the school environment (Wang & Degol, 2014). Features of the school environment provide the

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Authors' Contributions

Wang conceived of the study, participated in the literature review, and drafted the full manuscript; Hofkens drafted the literature review and model discussion and provided feedback on the full draft. All authors read and approved the final manuscript.

Conflict of Interest

The authors declare no conflict of interests.

opportunities and resources for engagement to occur, and students' skills, attributes, needs, and values determine how they engage in those opportunities. Understanding the types of opportunities and resources that support students' engagement has become a priority for informing education policy and practice (Wang & Eccles, 2012; Wang & Holcombe, 2010).

While the past 30 years have seen an influx of research on school engagement, this research has historically focused on academic engagement, particularly engagement in academic coursework (Wang & Degol, 2014). Although the significance of academic engagement cannot be discounted, academic learning in schools occurs in a fundamentally social context. Within classrooms, learning opportunities are embedded in the quality of social interactions between teachers and peers (Allen, Pianta, Gregory, Mikami, & Lun, 2011; Wang & Eccles, 2012a). Furthermore, adolescents strive to develop their identity and form relationships while navigating complex social networks within and outside of classrooms (Eccles & Roeser, 2011; Wang & Degol, 2016). Thus, focusing exclusively on academic engagement neglects the fact that adolescents' involvement with a wide range of academic activities and social interactions work together to shape their identities as socially integrated, academically capable, and committed learners (Skinner & Pitzer, 2012; Wang & Degol, 2014). While researchers have emphasized the salience of the social context as it pertains to academic achievement (Feldman & Matjasko, 2005; Rodkin, Ryan, Wilson, & Jamison, 2013; Wentzel, 1999), engagement in the social context has not yet been fully conceptualized or studied as an integral part of students' engagement in school, particularly for adolescents.

Developmental research has shown that student engagement declines significantly during the transition from elementary to secondary school, mainly because the academic and social contexts of secondary school are less aligned with the developmental needs of adolescents than those of elementary school (Eccles et al., 1993; Wang & Eccles, 2012b). Indeed, the transition to secondary school presents both academic and social challenges for adolescents. Starting in middle school, academic work tends to be more passive and cognitively demanding (Juvonen, 2007), and the content is often not presented in a way that is relevant, useful, or interesting to adolescents (Eccles, 2009). Likewise, the nature and quality of social interactions changes dramatically in secondary school: Adolescents typically move to larger, less personal, and more formal schools. These schools tend to emphasize ability comparison and competition (Wang & Degol, 2016), especially when teachers use more social comparison-based standards. Secondary-school teachers themselves tend to be less emotionally supportive than elementary teachers (Zimmer-Gembeck, Chipuer, Hanisch, Creed, & McGregor, 2006), and the instructional practices used within the secondary-school environment (e.g., ability grouping) shape the types and variety of students with whom students interact (Crosnoe, Johnson, & Elder, 2004; Frank et al, 2008; Wang, Kiunu, Degol, & Salmela-Aro, 2018). These contextual changes foster competition and undermine a sense of belonging in school at a time when adolescents experience a significant need for successful peer and adult relationships (Ryan & Patrick, 2001).

In order to support adolescents' academic achievement in school and fully capture the holistic nature of student engagement, the authors propose a multi-contextual conceptualization that describes the academic and social contexts where engagement occurs (i.e., school as a multi-contextual setting for engagement), the individual and contextual

characteristics that contribute to adolescents' ability and willingness to engage (i.e., motivational influences of engagement), and the relationship between engagement and academic achievement (i.e., outcomes of engagement). The authors begin by first defining what it means to engage in school from a multi-contextual perspective and elucidating the nature of and relationship between the academic and social contexts in school. Motivation theories are then used as an operational framework for understanding how and why adolescents engage in the academic and social contexts of school during the interplay of various personal and contextual factors that facilitate academic development. Finally, the authors examine how adolescents' attempts to coordinate their engagement in academic and social contexts can have important implications for their academic achievement by proposing four ways to model the effects of engaging in the academic and social contexts in school.

Multi-Contextual School Engagement

School is a complex developmental context in which adolescents strive to meet their developmental needs and establish their identity through participation in academic activities and social interactions (Eccles & Barber, 1999; Wang & Degol, 2016). While the academic and social aspects of school are considered important to adolescent development, extant studies have tended to equate school engagement with the quality of adolescents' involvement in their academic coursework (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Wang & Degol, 2014). Indeed, the phrase "school engagement" has become synonymous with engagement in academic coursework in part because engagement research aims to understand how to support adolescents' academic achievement in school. However, if educators and researchers are interested in fully understanding the pathway(s) to academic success, then they must incorporate the "social side" of schools into the conceptualization of school engagement. This facet of school engagement is essential to understanding the fundamentally social nature of schools and the importance of social interactions to adolescents (Wang, Fredricks, Ye, Hofkens, & Schall, 2018).

Throughout school, adolescents spend a considerable amount of time interacting and socializing with others (Ryan, 2000; Wentzel, 1997). Developmentally, adolescents are attuned to the nature and quality of social interactions (Midgley, 2002; Wang & Eccles, 2012a), and there is evidence that the quality of social interactions affects their achievement (Allen et al., 2013; Kiefer & Ryan, 2011; Shin & Ryan, 2012; Wentzel, 1991; Wigfield, Byrnes, & Eccles, 2006). Adolescents who have developmentally supportive experiences in both social and academic contexts maintain their motivation and achievement after the transition into secondary school (Eccles & Roeser, 2009, 2011). Accordingly, developing an integrated understanding of the importance of engaging in the academic and social contexts of school holds promise for supporting student engagement and achievement during adolescence.

Engagement in the Academic Context

The *academic context* refers to features of the school environment that structure and support students' participation in learning and pursuit of academic accomplishment. Within

classrooms, instruction, course content, behavioral management, and the nature of academic work structure the ways in which students can engage academically. Previous research has shown that the quality of students' involvement in academic activities within class is a strong predictor of academic outcomes (Hughes, Luo, Kwok, & Loyd, 2008; Skinner, Kindermann, & Furrer, 2009; Wang & Eccles, 2012b). For example, adolescents with higher engagement in class have better grades and aspire for education beyond secondary school (Wang & Eccles, 2012b; Wang & Eccles, 2013; Wang & Holcombe, 2010). In addition to educational outcomes, students with more positive trajectories of engagement are less likely to be involved in delinquency and substance abuse (Henry, Knight, & Thornberry, 2012; Li & Lerner, 2011, 2013; Wang & Fredricks, 2014). Collectively, these studies suggest that engagement in the academic context can be a protective asset that decreases the likelihood of adolescents engaging in problem behaviors and increases academic competence.

Outside of the classroom, school-sponsored academic supports and academic extracurricular activities can contribute additional opportunities and resources to engage in learning and attain academic success. Indeed, schools' supplemental programming, like library media programs, special education programs (Lance, 2002), and academic extracurricular activities, has been associated with academic achievement (Fredricks & Eccles, 2006; Mahoney, Cairns, & Farmer, 2003). While students spend more time on academics inside than outside of class, out-of-class opportunities make important contributions to the overall quality of students' involvement in the academic context. However, out-of-classroom components of academics are isolated features of the global school context that are peripheral to student engagement in school (Farb & Matjasko, 2012). Incorporating out-of-class learning opportunities and resources into the academic context can help identify what types of out-of-classroom activities contribute to the academic context and effectively support or hinder academic success in school.

Accordingly, engagement in the academic context consists of adolescents' behavioral, cognitive, and emotional involvement with coursework, academic-related activities, and learning supports throughout the school setting. This view of academic engagement synthesizes classroom engagement studies (e.g., Skinner & Belmont, 1993) with literature that describes adolescents' positive conduct in school (Finn, 1993) and participation in school-based activities (Finn, 1993; Fredricks & Eccles, 2006). Furthermore, the inclusion of both supports and opportunities/resources expands how research has traditionally thought of the academic context. By including these elements, researchers have been able to provide a comprehensive perspective of how schools strive to support academic success and the complex ways in which adolescents navigate schools to pursue their interests and develop competencies. Thus, the term *academic engagement* refers to the quality of adolescents' involvement in their school's academic coursework, curriculum, programs, and activities that support learning and achievement.

Engagement in the Social Context

The school's *social context* encompasses the features of school that provide students with opportunities for positive and productive interactions with their teachers and peers. Within academic courses, the social climate among students and teachers, nature of academic work,

and instructional and relational strategies shape affordances for the types of social interactions that can contribute to achievement and achievement-related behaviors (Crosnoe, 2001; Eccles & Barber, 1999; Wang & Degol, 2016). For example, when faced with academic and social challenges, engaging in social interactions with supportive teachers and peers serves as a positive outlet and resource for coping with these stressors adaptively (Finn & Zimmerman, 2012). Students who enjoy, value, and feel competent in their social interactions are also more likely to enlist the support of others for academic tasks (Patrick, Ryan, & Kaplan, 2007; Wang et al., 2018) and cultivate friendships with mutual support and self-disclosure (Sanderson, Rahm, & Beigbeder, 2005). Furthermore, social perspective-taking skills have been associated with productive collaboration with peers on academic work (Ryan & Patrick, 2001) and academic performance (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Wang et al., 2018).

Outside of coursework, academic and non-academic extracurricular activities provide additional avenues for structured social interactions with peers and adults (Farb & Matjasko, 2012), while lunchrooms, hallways, and gymnasiums offer unstructured micro-contexts within which students engage in relatively free and unsupervised interactions (Cash, Bradshaw, & Leaf, 2015; LaRusso, Jones, Brown, & Aber, 2009). Productive involvement in social interactions outside of class can generate the social resources, affiliations, and mentoring relationships that lead to success in academics (Mahoney, Larson, & Eccles, 2005).

Correspondingly, engagement in the social context refers to the quality of adolescents' involvement in social interactions with peers and adults throughout the school setting. This perspective synthesizes research illuminating that social interactions with adults and peers inside and outside of class are important to adolescents' academic achievement (Fredricks & Eccles, 2006; Linnenbrink-Garcia, Rogat, & Kovaski, 2011; Rimm-Kaufman, 2004). In addition, this viewpoint expands on extant literature that poses social engagement as pro-social behavior (Finn & Zimmer, 2012) or affective social processes (Skinner, Furrer, Marchand, & Kindermann, 2008). By focusing specifically on social interactions, these researchers ripen their ability to develop critically needed conceptual clarity that avoids confounding facilitators and outcomes with indicators of engagement in the social context (Skinner, Furrer, Marchand, & Kindermann, 2008). For example, adolescents strive to establish and maintain interpersonal relationships in school, which influence and are influenced by the cognitive, behavioral, and emotional ways in which students interact with peers and adults. *School social engagement*, then, captures the fundamentally social nature of school in a way that provides a framework for studying how social interactions shape adolescents' academic learning.

The Relationship between the Academic and Social Contexts

Within schools, the academic and social contexts can relate to one another in a variety of ways. While schools are fundamentally academic and social, the relationship and quantity of overlap between these contexts can vary. Academic activities and social interactions can occur as relatively separate spheres of activity in schools, or they can overlap or be

integrated by the school's organization and teachers' practices (Schunk, Pintrich, & Meece, 2002).

For example, academic activities and social interactions may be compartmentalized where classes are highly structured and teacher-centered. In these settings, teachers may emphasize lecture and independent work in class, encouraging students to save social and academic interactions with peers during free or less structured time. In contrast, schools where teachers implement cooperative or collaborative learning provide semi-structured environments that integrate academic work with social interactions. Similarly, school-wide socioemotional programming can integrate the social and academic contexts by entrenching socioemotional learning within coursework and providing semi-structured academic opportunities that target social and emotional skills.

It is also important to note that academic and social contexts overlap less and become less integrated in secondary schools. Compared to elementary schools, the secondary school schedule is highly structured: More time is devoted to academic learning, and students spend less time with any given group of peers or adults as they change courses throughout the day. Within secondary classrooms, instruction is more teacher-centered and less oriented towards adolescents' social and emotional development. Furthermore, secondary school teachers often emphasize lecture and independent work while engaging in fewer socially supportive interactions with students than primary school teachers (see Eccles & Roeser, 2009, 2011; Wang & Degol, 2016). Considering that student engagement declines after the transition from primary to secondary school (Eccles et al., 1993), this decline may relate to how students coordinate their engagement in the academic and social contexts and how engagement in both contexts facilitates academic achievement.

In summary, academic and social contexts do not refer to specific spaces or activities in schools. Instead, they refer to the developmentally salient features of the school context (i.e., academic activities and social interactions) that contribute to student academic engagement and success. Within and outside of classes, students are provided structured and unstructured opportunities to participate in academics and social interactions. Together, these organizing features (i.e., within versus outside of class; structured or unstructured) map the territory for student engagement in academics and social interactions throughout school. In addition to the nature of domains themselves, however, students' ability and willingness to engage is further influenced by the relationship between academic and social domains in schools.

Motivational Frameworks for Adolescent Engagement in School

While the school's academic and social contexts provide affordances for engaging in school, motivational factors influence how much and in what ways adolescents leverage these opportunities to engage. In this section, the authors integrate *self-system theory* (Skinner, Kindermann, Connell, & Wellborn, 2009) with *expectancy-value theory* (Eccles, 2009) to explain the psychological processes underlying students' engagement in school while shining a light on motivationally salient features of the academic and social contexts.

Self-System Theory

Self-system theory helps us understand the fundamental motivational processes driving student engagement in school by positing that (a) adolescents are motivated to learn and succeed, and (b) adolescents engage in school to fulfill their psychological needs for competence, autonomy, and relatedness (Connell, 1990). These psychological needs are motivational processes that drive students toward tasks and interactions as well as inform their self-beliefs and appraisals of how competent, autonomous, and related they feel within particular contexts (Connell & Wellborn, 1991; Deci & Ryan, 2000).

Both academic and social contexts provide opportunities for adolescents to fulfill these psychological needs and personal goals. For example, adolescents develop academic competence by engaging in challenging and meaningful work (Eccles & Roeser, 2009, 2011), pursue autonomy by expressing their views and making choices regarding academic work (Niemic & Ryan, 2009), and attain relatedness by engaging in interactions with peers and adults that elicit the support needed to be successful and connected in school (Ryan, Pintrich, & Midgley, 2001; Wentzel, 2002). Socially, adolescents seek opportunities to engage in cooperative and collaborative interactions with peers and adults within and outside of class (Roeser, Eccles, & Sameroff, 2000). The experiential quality of activities and interactions with others provides adolescents with feedback about their social competence to interact with others, relatedness to others in activity settings, and social autonomy to fulfill personal goals.

Conversely, self-system theory also explains that adolescents may fail to engage in academic work or social interactions if their psychological needs are hindered or thwarted in either the academic or social contexts. For example, while structure that scaffolds understanding, progress, and collaboration can contribute to adolescents' sense of competence and relatedness, structure that is overly controlling can constrain adolescents' ability and willingness to pursue autonomy and develop competence (Wang & Holcombe, 2010). Likewise, policies and practices emphasizing performance over mastery of academic skills and relying upon socially comparative evaluation can alienate adolescents from their academic work and peers, thus undermining competence and relatedness in school (Wang & Eccles, 2013). Therefore, the provision of academic and social opportunities within the school setting is the first step in supporting student engagement in school.

Expectancy-Value Theory

While self-system theory explains the needs driving school engagement, expectancy-value theory illustrates how adolescents coordinate their engagement in school. Often, adolescents can pursue their psychological needs in multiple ways in each school-related context, resulting in situations in which adolescents must decide where to focus their effort and energy. Expectancy-value theory posits that students make achievement-related choices based on how likely they are to succeed (e.g., expectations for success) and how much they value and enjoy the task (Eccles, 2009; Wang & Degol, 2014). Usually applied to the academic context, subjective task values are comprised of interest, utility value, attainment value, and cost, and they can apply to tasks within or outside of academic classes (Eccles, 2009). When students feel confident that they can learn and be successful in a particular

task, they are more likely to engage in deeper-level cognitive strategies, which are then associated with increased academic achievement (Wigfield & Eccles, 2002). However, being capable or good at a given activity does not necessarily mean that the student will pursue the activity or even enjoy doing it (Wang & Degol, 2014). In addition to confidence in one's abilities to succeed, expectancy-value theory suggests that achievement-related choices also depend on the value one attaches to various subject domains and future goals associated with these domains. Indeed, subjective task values are predictive of academic achievement and are even stronger predictors of educational choices than competence beliefs (Eccles, 2009).

A similar process could unfold in the social context. Given that expectancy-value theory is a generalizable theory of human motivation, adolescents' motivation to engage in social interactions within or outside of their classes may depend in part on their sense of social competence (or expectations for having a positive or productive interaction) and how much they value social interactions. A subjective value of a given social interaction could include the ease or flow of the interaction, intrinsic value of the interactions, usefulness of the interaction, influence on the student's identity, and cost of the social interaction in the way of taking up time, using resources, or presenting a conflict with other people or goals (Eccles, 2009). In these ways, expectancy beliefs and subjective task values contribute to levels, patterns, and quality of engagement in the academic and social contexts.

Furthermore, expectancies and task values provide individuals with specific reasons for engaging in school, and as such, they have the potential to explain why students engage in one context (i.e., academic or social) to a higher degree or with more persistence than another (Eccles, 2009). For example, to engage in mathematics learning, a student not only needs to believe they are math-capable, but they also need to enjoy doing mathematics and recognize the importance of being good at mathematics. The level and quality of engagement, therefore, depend on personal values, particularly those related to individual perceptions of how important, desirable, or useful it is to achieve a specific goal. Students can believe that many outcomes are important, useful, or enjoyable, but students may not necessarily engage in activities if they feel such activities are incongruent with their perceived competence or personal values (Schunk et al., 2002). In terms of conceptualizing and studying student engagement, the question is how adolescents' coordination of their engagement in the academic and social contexts relates to their achievement over time.

Understanding How School Engagement Affects Student Achievement

Engagement research has focused on identifying and measuring contextual and motivational influences on students' engagement in school (Wang & Degol, 2014). The underlying assumption of research and theory is that student engagement contributes to achievement; therefore, more engagement is better. Indeed, given the documented effects of engagement in academic activities and social interactions on academic achievement, it would seem like a pattern of high engagement in each context would be optimal for academic success.

However, coordinating engagement in the academic and social contexts can be motivationally challenging for adolescents. Pursuing engagement within multiple contexts requires adolescents to coordinate their engagement into an organized system of behavior

and cognition, potentially requiring adolescents to set aside personal values at times to discover, coordinate, or compromise with the personal values of others (Ford, 1992; Wentzel, 1999). Adolescents with effective coordination skills balance priorities across contexts, for instance, by doing homework with peers and budgeting time for both schoolwork and academic activities with friends. Contrastingly, adolescents who are unable to coordinate their engagement often experience frustration or stagnation.

To understand what patterns of coordinated engagement to support, it is necessary to consider the multiple ways in which engagement in academic and social contexts relate or interact to shape academic achievement. In other words, it may not be the case that sustaining and coordinating a high level of engagement in both contexts is the only or even the most effective path for achieving academic success. While engagement in the schools' academic and social contexts contributes uniquely to academic achievement, conceptualizing school engagement as an integrative construct consisting of academic and social contexts will help researchers and educators to better understand the diverse engagement mechanisms leading to academic success in school.

To elucidate the relationship between school engagement contexts, four models are proposed to describe how engagement in the academic and social contexts could shape adolescents' academic achievement throughout school (see Figure 1). The first model frames engagement in the academic and social contexts as independently acting on achievement. The second positions social engagement as moderating the effect of academic engagement on academic achievement. The third presents relations among the contexts of engagement as sequential, with fundamental orientations toward the self and social engagement guiding competency efforts in the academic context. Finally, in the fourth perspective, associations between academic and social engagement are described as reciprocal or bidirectional in nature.

Taken together, the four models introduce mechanisms and pathways that represent the dynamic relations between engagement in the academic and social contexts to lay the groundwork for studying school engagement in a way that reflects school as a complex developmental context for youth. Importantly, these models are not considered to be inferior or superior to one another in an absolute sense. Each model has distinct strengths and weaknesses, and which is appropriate to use depends on the theoretical perspective(s) and hypotheses being tested in conjunction with consideration for developmental periods and settings. Furthermore, additional research is needed to determine if a specific model(s) has the best fit or explains the most variance in academic achievement. Thus, the following sections describe each of the four models along with any associated applications, benefits, and challenges of using each analytic approach.

Model 1: Additive Relations between Contexts

The first model explores the relatively independent role each context plays in the development of school engagement (see Model 1 in Figure 1). This model emphasizes academic activities and social interactions as unique developmental contexts, each of which harbors the potential to meet adolescents' needs and develop expectancies and values that affect academic success (Eccles & Roeser, 2009, 2011). The academic and social contexts each represent an occasion for engaged adolescents to participate as well as an opportunity

for developing motivation in adolescents who are disengaged. Hence, the effects of engagement in multiple contexts are additive: Students who are engaged in both academic and social contexts experience the highest probability of academic success.

According to this model, students who are heavily invested in academics may limit their overall level or quality of academic achievement if their academic engagement comes at the expense of engagement in social interactions; however, since each context is equally weighted in terms of developmental importance, it is possible that increased investment in one context could compensate for relatively less investment in the other. The challenge, though, is that this model likely does not apply at the extremes. There may be thresholds in the extent to which engagement in each context can be compensatory or additive. Very low or no engagement in a domain may indicate the presence of disengagement, which is a distinct process with its own negative and recursive effects on academic achievement (Skinner et al., 2009; Skinner et al., 2008; Wang, Chow, Hofkens, & Salmelo-Aro, 2015; Wang & Fredricks, 2016). Thus, adolescents may need a minimal amount of academic and social engagement to be academically successful in school.

Furthermore, there may be a limit to how much engagement in the social and/or academic context(s) can contribute to achievement. Over-engaging in the academic or social context could undermine achievement if it exceeds students' ability to maintain engagement while meeting expectations relating to academic achievement (Wang et al., 2015). High levels of academic engagement contribute to burnout from school, which can have detrimental effects on students' overall engagement, achievement, and psychological wellbeing (Salmela-Aro, Kiuru, Leskinen, & Nurmi, 2009; Wang et al., 2015). For example, participating in extracurricular activities or upper-level coursework may increase students' value of and supports for academic success; yet, if students are involved in several activities and upper-level courses, they may struggle to coordinate their engagement to meet the multiple and competing demands on their time and energy. These highly academically engaged students could be further strained if they also attempt to maintain a very high degree of involvement in social interactions, the combined effects of which could undermine achievement over time. However, up to the point that students are over-taxed, high levels of engagement in the academic and social contexts could have additive effects on achievement.

Model 2: The Moderating Role of Social Engagement

In the second model (see Model 2 in Figure 1), engagement in the academic context affects academic achievement directly, while engagement in the social context moderates the effect of academic engagement on academic achievement. Unlike Model 1, this model requires academic engagement for academic success, which can be enhanced or undermined by the level and quality of students' engagement in productive and positive social interactions. Engaging in productive social interactions can influence the amount of time students spend on schoolwork and whether they seek help when needed (Farb & Matjasko, 2012; Patrick, Ryan, & Kaplan, 2007), thereby contributing to the effectiveness and persistence of academic engagement.

Additionally, engagement in the social context may influence the extent to which academic engagement shapes achievement because interacting with others in the context of doing

academic activities can fuel motivation for academic achievement (Wentzel, 2009). For example, when teachers incorporate group work or allow students to choose how they work in class, students can maximize their learning by explaining their ideas to others, asking questions, and considering multiple perspectives or strategies (Resnick, Asterhan, & Clarke, 2015). In these settings, students whose academic engagement occurs in the context of productive social interactions are more likely to have their psychological needs fulfilled, making them more motivated to persist through challenging work and re-engage after setbacks or failure (Ryan & Patrick, 2001; Wang & Eccles, 2012). Alternatively, students who avoid social interactions during group work or consistently choose not to work with others could undermine their ability to feel a sense of relatedness (Martin & Dowson, 2009). Over time, this disconnection could erode their motivation and academic success, even among students who are otherwise highly academically engaged (Furrer & Skinner, 2003).

Ensuring school engagement and academic achievement in this model requires further understanding of how to best support sustained engagement in academics that coordinates with participation and investment in positive and productive social interactions. This model describes how socially and academically integrated classroom environments can enhance student achievement by harnessing students' active participation in social interactions in the context of academic learning and, conversely, how these environments can be disadvantageous to students who fail to effectively engage in school social interactions.

This model is challenged by developmental differences in the alignment and importance of academic and social contexts as well as differences in how students engage in these contexts. Students' developmental stage and skills may determine the amount of structure needed to achieve significant moderating effects of social engagement on achievement. For example, while children in the early elementary school years are still developing core social skills for interacting productively with classmates and teachers, they may benefit more from structured social interactions (e.g., practice and modeling offered in responsive classrooms; Rimm-Kaufman, Fan, Chiu, & You, 2007). Adolescents in middle school, on the other hand, may seek freer forms of social interaction. Taken together, students' social skills and developmental orientation to their interactions with peers and teachers are important considerations for how to support engagement in the social domain and the effectiveness of moderating effects of social engagement on achievement.

Model 3: Sequential Relations between Contexts

According to the third model (see Model 3 in Figure 1), the relations between contexts are sequential, with social engagement fostering academic engagement, which in turn promotes academic achievement. As social interactions are the foundation of many academic activities, social engagement can facilitate or inhibit engagement in academics through the development of skills, dispositions, resources, and opportunities (Wentzel, 1991). Engaging in the school's social context increases social competence, which is a function of an individual's ability to regulate social goals, knowledge, and strategies for social interactions (Ford, 1992; Wentzel, 1992). The development of social skills aids in the subsequent development of regulatory skills and sets the stage for academic success (Patrick, 1997). Furthermore, the peer and adult interactions afforded to socially engaged students support

fundamental behavioral and emotional functioning in school and contribute to the development of perceived competencies that support high-level engagement in academics (Farb & Matjasko, 2012; Wang & Eccles, 2012a; Wentzel, 2002). Conversely, estrangement from social interactions puts adolescents at risk for poor mental health outcomes (Hall-Lande, Eisenberg, Christenson, & Neumark-Sztainer, 2007) and eliminates opportunities to develop the social networks and skills that underwrite the prolonged academic engagement and achievement attained by more involved students (Eccles & Barber, 1999).

Engaging in positive and productive interactions also enables students to acquire resources that can help them successfully navigate academic arenas of school (Dawes & Larson, 2011; Eccles & Roeser, 2011; Wentzel, 2009). These resources include emotional support, promotion of efficacy beliefs, and instrumental support (Martin & Dowson, 2009; Wentzel, 2012). Students who have positive social interactions with adults and peers are more likely to be supported in their active engagement in class and offered academic assistance when needed (Wang & Eccles, 2012b; Wang & Holcombe, 2010). In addition, they are more likely to be encouraged by peers and adults to join and stay involved in learning when faced with academic setback (Juvonen, Espinoza, & Knifsend, 2012). On the contrary, students who have negative experiences or perceptions of their classroom environment may avoid or struggle to engage in productive interactions with teachers or peers (Morrison, Bachman, & Connor, 2005). These experiences often put students at a dual disadvantage: They fail to develop the skills and resources that support learning while withdrawing from social interactions that could foster productive engagement in academics.

In sum, the level and quality of social engagement with teachers and peers sets the stage for academic engagement in this model, thus suggesting that schools and teachers should focus on supporting students' productive social engagement to help pave the way for subsequent academic engagement and success. Because school social engagement takes place within and outside of the classroom in both structured and unstructured spaces, this model illustrates how encouraging the development of social skills and fostering a positive social climate in schools is central to supporting students' academic success.

Model 4: Reciprocal Relations between Contexts

Lastly, the fourth model describes reciprocal relations between the academic and social contexts whereby all contribute to the type of sustained engagement that drives academic achievement (see Model 4 in Figure 1). In this model, engaging in either the social or academic context produces reciprocal effects of engagement in the other. This reciprocity creates multiple pathways to achievement through the same process: Once a student is engaged in the academic and social contexts of school, the relationship between these contexts can become dynamic, cyclical, and self-sustaining, with synergistic effects on achievement. The skills, dispositions, resources, and opportunities developed through engaging in either contexts create momentum that can affect continued or increased engagement within and across contexts. For example, involvement in academics can develop the type of social capital that supports academic engagement while engendering social engagement and greater feelings of school connectedness (Eccles & Roeser, 2011; Wang et al., 2018). Similarly, social engagement can increase a student's social competencies and

resources, which can contribute to continued academic resilience as well as positive academic engagement (Knifsend & Graham, 2012). Finally, the relational skills gained during interactions with peers, teammates, or club advisors can be transferred to the academic context when interacting with teachers and other adults (Fredricks & Eccles, 2006).

Consider an example of a student who is only moderately engaged in overall academics but highly engaged in a challenging science class in which they enjoy positive social interactions with their science teacher and classmates. Because of her hard work, this student may perform well in the class and subsequently be encouraged by the teacher and other students to join the science club, where they may meet and befriend academically engaged friends. As the student spends more time with these peers outside of science class, they begin to identify with high-achieving peers, which contributes to feelings of academic competence and the internalization of loftier academic values and goals. In this way, positive social engagement can be momentum-building: Social engagement may serve as a catalyst for the development of social and academic skills and opportunities that lead to higher levels of motivation within the student, thus resulting in sustained engagement in school.

One challenge with this model is to identify the factors that interfere with reciprocal effects. Just as there are several on-ramps through which engagement can become momentous, there are also likely several exit ramps that can lead to students' engagement in the derailment of either academics or social interactions (Eccles & Roeser, 2011). In comparison, the three previously discussed models have focused on conceptualizing and understanding the continuum of low to high engagement. This model, however, might also explain the sudden or gradual processes by which students become disengaged from academics or social interactions. For engagement in the academic and social context to be reciprocal, students' engagement needs to be reinforced through multiple iterations. While engagement can be momentum-building, socially disruptive processes like stereotype bias or experiencing an academic setback can interfere with that momentum and cause students to disengage socially or academically (Binning, Wang, & Amemiya, 2018; Wigfield et al., 2006).

Summary of the Model Description

The proposed models are not mutually exclusive, and each offers a distinctive way to view and study developmental changes, as they reflect various levels of generality at which school engagement might be studied. For instance, multiple frameworks could be useful for investigating how engagement trajectories affect achievement over the course of primary and secondary school. Students encounter significant changes and obstacles to their engagement during the transition from primary school to secondary school; therefore, this shifting landscape necessitates modification of patterns of engagement as cognitive skills become more sophisticated, senses of identity deepen, and academic and social contexts increase in complexity (Eccles & Roeser, 2011; Wang & Degol, 2016). To preserve their level of achievement, students need to adapt their level and coordination of engagement within and between contexts within the school. This adaptation can be a turning point for many students at a time when their developing interests and investments in social relationships are changing their pattern of engagement in school.

Implications for Educational Practice and Policy

The significance of the multi-contextual perspective goes beyond the obvious notion that adolescents engage in school academically. The academic and social contexts constitute the most salient aspects of the school environment, and the dynamic processes between these two contexts characterize adolescent students' daily experiences in school, thereby forming their overall school engagement (e.g., Cash et al., 2015; Lynch, Lerner, & Leventhal, 2013). Given that these contexts are interrelated, understanding how school engagement affects adolescent students' academic achievement hinges upon the unique contributions of each context as well as the additive effects garnered from complexly embedded reciprocity (LaRusso et al., 2009). Furthermore, this entwined nature of engagement contexts within the school environment prompts that a more holistic, multi-contextual approach be adopted to avoid endorsing a reductionist perspective on school engagement and misinterpretation of students' development (Eccles & Roeser, 2011). Instead, a focus on the academic and social contexts of engagement provides a comprehensive view of the multiple developmental pathways that adolescent students can pursue in schools.

Per the multi-contextual perspective, each context is critical to academic development. Academic activities and social interactions coalesce in school settings to establish a dynamic environment that can support adolescent students' psychological needs while offering diverse and overlapping opportunities for students to pursue their individual interests, values, and goals (Wigfield et al., 2006). Correspondingly, students have a greater chance of academic success when they maintain a dynamic balance of academic and social opportunities. By investing in each of these contexts, schools provide multiple pathways for students to become engaged in school, hence maximizing the additive, multiplicative, and synergistic effects of engagement across contexts. Schools can support these contexts by identifying opportunities for adolescents to engage in learning and interact with other, and then providing opportunities for integrating academic learning and social interaction.

Attending to the school's social features could be beneficial for students navigating the developmental tasks of forming relationships and exploring their identity during the transition to secondary school (Eccles et al., 1993). For example, building opportunities for students to initiate and participate in positive social interactions during the day can foster a sense of belonging and the kind of high-quality interpersonal relationships that help students attribute value to and work hard in school (Juvonen, 2006). In addition, implementing instructional practices that support social interactions in the classroom can target students' achievement motivation by bridging social and academic contexts. Classrooms in which students are required to cooperate with and support one another's learning meet developmental needs for relatedness and social competence (Eccles et al., 1993; Skinner et al., 2009) while capitalizing on students' increased capacity for considering others' perspectives and being reflective (Ryan & Patrick, 2001). Finally, providing a diverse range of high-quality, non-academic activities can initiate and sustain school engagement for students with a wide range of aptitudes and interests while providing a developmentally aligned gateway to engaging in school, even for those who are not initially inclined to value or feel accomplished in academics (Farb & Matjasko, 2012).

Future Research

Understanding adolescent students' daily lives in school has received increased attention in psychological and educational research. Although we know much from existing research on student engagement, the proposed multi-contextual approach offers a supplementary perspective from which to study and understand school engagement. In this section, the authors identify areas that require clarification and expansion.

Supporting academic values.—Engagement in school is malleable and can be fostered by targeting students' motivation to succeed (Binning, Wang, & Amemiya, 2018; Wang & Amemiya, 2019). Educators and researchers are challenged with understanding how best to support the development and internalization of students' achievement-related values. Adolescents reconcile and integrate different values within themselves and among other social agents (e.g., teachers, parents, and peers; Wigfield & Eccles, 2000). Discrepancies in the values held by parents and those that are promoted in school can create both opportunities and challenges for adolescents as they endeavor to meet their psychological needs across contexts. To accomplish these developmental tasks, students participate in cycles of social affiliation, assimilation, and reorganization of social relationships and personal values (Ryan, 2000). These socialization processes structure how students allocate time and effort differentially across various academic and social activities. By examining how students coordinate these divergent values, researchers and practitioners can better support their engagement in school. Future research should examine issues surrounding the task values that individual students bring to the school and whether a student has effective strategies for pursuing those values by coordinating engagement in multiple contexts. Future research should also investigate how socialization processes within classrooms and the home environment shape the development of academic values and determine the barriers and supports for students to integrate and actualize academic values across the contexts of school.

Reciprocal dynamics between teacher, parent, and student engagement.

To improve and sustain students' academic success, more studies are needed to illuminate how teachers and parents influence engagement in each of the contexts of school. Future research should focus on how parent and teacher engagement in a student's schooling shape patterns of engagement across contexts (Skinner & Pitzer, 2012). Some research has already identified numerous ways in which teacher and parent behavior, emotion, and cognition shape students' level and quality of engagement in school. For instance, teachers' and parents' behavioral support in the way of providing orderliness and structure has been linked to adolescents' motivation to learn and achieve in school (Wang & Eccles, 2012; Wang, Hill, & Hofkens, 2014). Emotionally, teachers' respect and care has been connected to students' enjoyment of their schoolwork (Skinner & Belmont, 1993) and development of positive achievement-related values (Wang, 2012; Wang & Eccles, 2013). Cognitively, teachers' and parents' planning and strategizing, along with genuinely considering students' perspectives, can cultivate engagement by supporting their internalization of academic values and goals (Niemi & Ryan, 2009; Wang & Degol, 2016; Wang & Sheikh-Khalil, 2014).

Likewise, as students become more engaged, teachers and parents may become more energized to continue to support student engagement. Often, adults respond differently to students based on their observable participation in schoolwork (e.g., remaining on task, disruptive behavior; Kiuru et al., 2015). Specifically, hard-working, persistent students who value learning tend to evoke positive interactions with adults (Wang & Degol, 2014). Teachers and parents are also more likely to engage with these students and support their efforts to succeed in school, thus illustrating the reciprocal nature of the engagement model (Skinner, 2016). Conversely, students who are disengaged typically have issues with misbehavior and poor academic performance, resulting in teachers responding to these students using fewer supports, more coercive practices, and less patience (Skinner, 2016).

Reciprocal processes between teacher, parent, and student engagement are complex, and are an important area for future research. Although extant studies on the complicated relationship between teachers, students, parents, and engagement tend to be cross-sectional and unidirectional, several longitudinal studies have revealed that the process of engagement can spark virtuous or vicious cycles of student engagement (Skinner & Pitzer, 2012). A multi-contextual perspective sheds new light on how to conceptualize and describe these cycles, and provides a framework for studying how, why, and when they occur. Future research should disentangle the reciprocal dynamics between teacher, parent, and students' social and academic engagement so as to better understand how to create and sustain positive engagement between adolescents and adults.

Broadening the social and academic contexts.—Additional research is needed to understand the nature and function of the social context for student engagement in school. Current research on social engagement has focused largely on the interactions and relationships that occur in and across structured contexts (Rimm-Kaufman et al., 2007; Wentzel, 2009, 2012), leaving interactions in unstructured spaces relatively unexplored. The existing research on social interactions in unstructured spaces (e.g., hallways and lunchrooms) tends to focus on bullying (Ferrás & Selman, 2014), with little consideration given to how positive unstructured social interactions with adults and peers influence engagement and achievement. Future research could also differentiate the salience of social engagement with different types of peers and adults in school. Social engagement with academic (e.g., teachers) versus non-academic (e.g., coaches) adults, near versus distant peers, and peers versus friends may be significant to school engagement in ways that are important for designing and implementing successful interventions.

Similarly, more studies are needed to better understand the components of the academic context that occur outside of classroom learning. There has been a significant amount of research on extracurricular involvement and some research on library programs, both of which have documented the importance of out-of-classroom, school-embedded academic opportunities to academic achievement (Eccles & Roeser, 2011). However, this research has not been integrated into the broader academic context or conceptualized as components of school engagement. More research is needed to explore the role of other aspects of the out-of-class components of the academic context, including academic supports and resources (e.g., tutoring, career counseling, and college advising) and social structures and supports (e.g., mentoring, counseling, and peer tutoring). A full understanding of the out-of-

classroom components of the academic context could open new doorways to intervening and supporting academic achievement in school.

Engagement profiles across contexts.—The multi-contextual model provides insight and structure for identifying a variety of profiles of student engagement in school. Recent work has identified profiles of behavioral, cognitive, and emotional dimensions of academic engagement in school (Li & Lerner, 2011; Wang & Peck, 2013). The multi-contextual model paves the way for studying profiles of students' engagement in the social context and for studying profiles of engagement across contexts. As with student engagement in the academic context, student engagement in the social context can be characterized in behavioral, emotional, and cognitive ways, creating a three-by-two conceptual space. Further, cognitive engagement in each context consists of a related-but-unique set of cognitive skills and involvement (Fredricks et al., 2004). Cognitive engagement across contexts may nurture the development of more complex higher-level cognitive skills that contribute to increased levels of academic learning and achievement. Future research could investigate the additive or multiplicative effects of a profile of high versus mixed levels of cognitive engagement across contexts. Alternatively, profiles of student engagement across contexts might be complementary and compensatory, particularly regarding emotional engagement. Students may not need to enjoy, value, and experience positive affect across all school contexts in order to be high-achieving; instead, high emotional engagement in one or two contexts might be able to compensate for low emotional engagement in another. Further investigation is needed to understand how the dimensions of engagement function within the contexts to serve as mechanistic links between the contexts that explain the effects of engagement on academic achievement.

Conclusion

As adolescents exhibit declining and low levels of engagement in school, many institutions are focusing on improving and supporting student engagement. The proposed re-conceptualization of school engagement holds promise for understanding the complexity and durability of adolescent students' engagement and disengagement across different contexts in school and identifying underlying processes that contribute to individual differences. Grounded in self-system theory and expectancy-value theory, the presented motivational models can be used as supplementary frameworks to clarify and enrich current theoretical discourse about the school context. In the multi-contextual perspective on school engagement, adolescents can engage in a variety of non-linear ways with multiple gateways to school engagement. An emphasis should be placed on considering the academic and social contexts, as they frame the contexts within which students construct and imbue their school experiences with meaning. This nuanced motivational model may also provide tools to help researchers and educators explore and nurture the long-term development of valuable but overlooked assets that anchor students' engagement.

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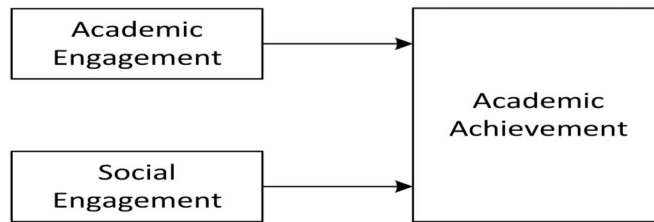
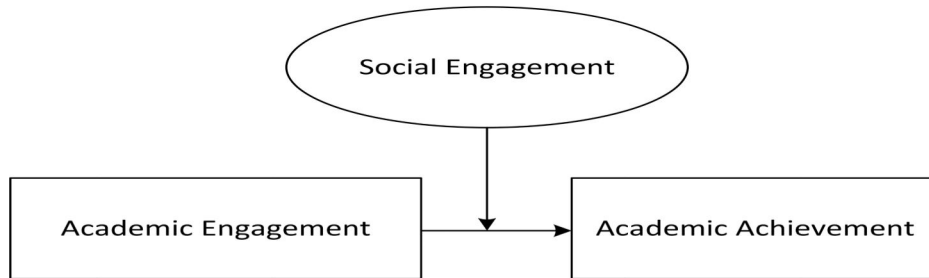
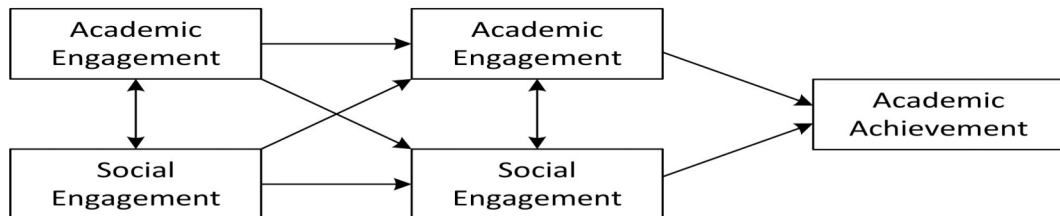
Model 1. Additive Relations**Model 2. Interactive Relations****Model 3. Sequential Relations****Model 4. Reciprocal Relations**

Figure 1.
Hypothesized Multilevel, Multidimensional Models Describing the Interactions and Effects of Academic and Social Engagement