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What is This?

New Conceptual Frameworks for Student Engagement Research, Policy, and Practice

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Student engagement research, policy, and practice are even more important in today's race-to-the top policy environment. With a priority goal of postsecondary completion with advanced competence, today's students must be engaged longer and more deeply. This need is especially salient for students attending schools located in segregated, high-poverty neighborhoods and isolated rural communities. Here, engagement research, policy, and practice must become more nuanced and less formulaic, and the ensuing review is structured accordingly. Guided in part by social-ecological analysis and social-cultural theory, engagement is conceptualized as a dynamic system of social and psychological constructs as well as a synergistic process. This conceptualization invites researchers, policymakers, and school-community leaders to develop improvement models that provide a more expansive, engagement-focused reach into students' family, peer, and neighborhood ecologies.

KEYWORDS: student engagement, student agency, student interest, school improvement, social-ecological theory.

The new federal and state policy agenda in the United States, announced as Race-to-the-Top, offers a new and compelling mantra: *College for All*. In this new race, high school graduation is no longer the finish line. The goal now is to lead the world in the number of students who graduate from baccalaureate degree-granting institutions, community colleges, and adult career-technical institutes. With urgent needs for human capital development in the new global economy, this policy agenda is attractive and compelling on the drawing board. Implementation is another matter. As the saying goes, the devil's in the details.

Student engagement tops the list of important details. In the new policy race, engagement gains new meanings and becomes more significant, especially for the millions of students who drop out or do not complete high school on time, as well as those who enter postsecondary education but fail to complete it because of needs for extensive academic remediation (e.g., Balfanz & Byrnes, 2012;

Complete College America, 2012; Darling-Hammond, 2010). For these students, engagement is not merely a here-and-now phenomenon—a status or an event—in particular classrooms (Eccles & Wang, 2012). Rather, with postsecondary education completion as the priority goal, today's engagement agenda must facilitate new relationships and longer educational careers (Spilt, Hughes, Wu, & Kwok, 2012), encompassing successive grade levels, schools (preschools, K–12 schools), and postsecondary institutions (Brofenbrenner, 1979; Finn & Zimmer, 2012; Voelkl, 2012). It must also extend outside of school boundaries because family, peer, and neighborhood ecologies exert powerful influence on students' educational opportunities and interests, as well as their aspirations for the future (C. D. Lee, 2012; Ream & Rumberger, 2008; Skinner & Pitzer, 2012; Tate, 2012; Wylie & Hodgen, 2012).

Such is the context for the ensuing theoretical review on student engagement research. The primary aim is to offer a more nuanced and less formulaic conception of student engagement and its associated features and processes. To accomplish this goal, we sample and then integrate studies from several diverse literatures and disciplines. The result of this conceptual bridging building work is a socio-ecological conception of engagement, one that utilizes the best of past-present theory but also extends it in important ways.

For instance, although our conceptualization begins with due appreciation of the dominant conception of engagement as consisting of affective/emotional, behavioral, and cognitive indicators or dimensions (Appleton, Christenson, & Furlong, 2008; Fredericks, Blumenfeld, & Paris, 2004), we consider student engagement more broadly in this review. We present it as the conceptual glue that connects student agency (including students' prior knowledge, experience, and interest at school, home, and in the community) and its ecological influences (peers, family, and community) to the organizational structures and cultures of school. This broad, systems-oriented conceptualization widens the dominant social-psychological lens of engagement research to include salient sociocultural and sociological features and processes. These features and processes are well mapped in studies of the social foundations of education but remain sparsely integrated in quantitative research on student engagement.

In addition to integrating a broad range of engagement-relevant constructs and frameworks, this review serves to highlight key, unresolved methodological issues, conflicts, and tensions. The first of these involves the presumed temporal order of engagement-related processes and events. As other researchers have noted, much quantitative engagement research reflects the view that key aspects of the engagement process, namely, the indicators and facilitators for engagement, should be evaluated with respect to a predetermined, linear, and temporal order (Finn & Zimmer, 2012; Green et al., 2012; Skinner, Furrer, Marchand, & Kindermann, 2008). In this linear-temporal research frame, students' motivations and school attachments are typically operationalized as antecedents to, and facilitators of, engagement, whereas variations in, and often behavioral indicators of, engagement are thought to follow changes in the degree and/or type of student motivation (Skinner et al., 2008). These linear relationships are typically depicted in a context → motivation → engagement → outcome temporal sequence (e.g., Connell & Wellborn, 1991; Green et al., 2012; Skinner et al., 2008). Here, classroom instruction is thought to influence students' motivations in school, students' motivations

are thought to predict engagement, and student engagement is thought to mediate the association between students' motivation and learning outcomes (Reeve, 2012; Skinner & Pitzer, 2012). As we detail in the following pages, the temporal sequence of these constructs/events may be more dependent upon the particularities of students' surrounding cultures, contexts, and ecologies than what quantitative engagement researchers have typically imagined.

A second set of issues addressed in this review involves the potential for variable-centered statistical methods (e.g., the general linear model and its extensions) to obfuscate relations among engagement-relevant constructs for discrete subpopulations of students. As Feinstein and Peck (2008) suggest, variable-centered research on student engagement typically proceeds with the assumption that results yielded from statistical analysis should generalize to all students in the sample population. Consequently, if a study using a nationally representative student sample yielded a significant association between, say, intrinsic motivation and engagement, then the presumption would be that the direction, strength, and magnitude of that relationship holds for all students. One size fits all.

Notwithstanding the importance of linear-focused, variable-centered engagement research for particular research questions, policies, and interventions, this review offers alternative perspectives and analytic approaches. Namely, rather than describe, explain, or predict normative engagement experiences and outcomes for "average" students across an "average" and/or singular set of social-institutional or community conditions, this review aims to advance a set of conceptual-analytic frameworks that model how engagement may vary as a function of subpopulation differences as well as situational (e.g., contextual, cultural, and sociological) uniqueness. For this reason, person-centered analytic and intervention frameworks—namely, methods that attend to relationships among *multiple* variables, events, and systems simultaneously and inclusively—are especially salient to this review. They are privileged throughout because we believe they hold particular promise for developing more responsive and ecologically valid frameworks for student engagement research, practice, and policy with discrete subpopulations of students (e.g., Eccles & Wang, 2012; Janosz, 2012).

Organization and Progression of the Review

Our review begins with conventional research depicting student engagement as a social-psychological construct consisting of affective/emotional, behavioral, and cognitive indicators (Appleton et al., 2008; Fredericks et al., 2004). From there, we selectively take stock of the contributions provided in the newly published international handbook on student engagement (Christenson, Reschly, & Wiley, 2012b). We emphasize how social-ecological theory (Skinner & Pitzer, 2012; Unger, 2011; Yazzie-Mintz & McCormick, 2012) and social-cultural analyses (e.g., Crick, 2012; Hipkins, 2012) contribute to a more nuanced understanding of engagement-related processes and outcomes. Then we complement the handbook by exploring how the study of student engagement dispositions, population characteristics, school ecologies, and place-based, social geography might better highlight the engagement-related strengths and needs of vulnerable student populations (e.g., O. Johnson, 2010; Tate, 2012), namely, students challenged by poverty, social exclusion, and social isolation.

We conclude by identifying some additional implications for engagement research, practice, and policy. Here, we build on the engagement-focused, intervention framework outlined by Christenson et al. (2012a). We claim that directives provided by extant engagement research and current policy are vital but by themselves insufficient. We also emphasize that our theorization necessitates complex, nuanced research designs developed in tandem with expansive school improvement models. These models provide an engagement-focused reach into students' family, peer, and neighborhood ecologies.

Building on Extant Conceptualizations for Student Engagement

The extant literature is replete with different definitions and conceptions of the meaning and functions of student engagement (Reschly & Christenson, 2012). This endemic diversity and complexity challenge researchers to identify and then make sense of the literature's similarities, commonalities, and uniqueness. Although there are no shortcuts, a traditional frame of reference for engagement research is identifiable in the research literature. Three primary assumptions are especially salient.

The first is that engagement is malleable, namely, it is amenable to improvement via pedagogy and other interventions. The second is that engagement represents a direct pathway to learning (Skinner & Pitzer, 2012). That is, once engagement occurs, powerful learning outcomes often follow it (National Research Council & Institute of Medicine, 2004). The third is that engagement is theoretically distinct from students' motivations (Finn & Zimmer, 2012; Martin, 2012). Although student motivation may reflect the direction of students' energy toward school and/or the classroom (Assor, 2012), engagement is thought to represent the affective, cognitive, and behavioral activation of that energy and direction. For this reason, some researchers have defined engagement as *energy in action* (Ainley, 2012; Skinner & Pitzer, 2012).

Framed in this way, many researchers study engagement within the context of "life in schools," namely, what happens in classrooms and inside the school's walls. Here, researchers typically focus on students' *academic engagement* at the school (Appleton et al., 2008; Finn & Zimmer, 2012), as well as their engagement in particular classroom activities, namely, their *classroom engagement* (Skinner & Pitzer, 2012). In these studies, engagement is typically conceptualized as a meta-construct, consisting of three primary indicators or forms (after Fredericks et al., 2004). These *indicators of engagement* are: (a) affective-emotional engagement, (b) cognitive engagement, and (c) behavioral engagement (Appleton et al., 2008; Fredericks et al., 2004; Furlong & Christenson, 2008). Each merits a short review.

Affective Engagement

Researchers use the term *affective/emotional* engagement to describe students' social, emotional, and psychological attachments to school. For ease of analysis, these studies can be classified into two categories. The first kind of research examines students' affective engagement in relation to their academic pursuits. These studies assess students' levels of interest, enjoyment, happiness, boredom, and anxiety during academic activity (Ainley, 2012; Appleton et al., 2008; Pekrun & Linnenbrik-Garcia, 2012; Skinner et al., 2008).¹ A second kind of research takes a broader, institutional view. In these studies, the focus is on students' feelings of

belonging, identification, and relatedness to their school peers, teachers, and the school overall (Daly, Shin, Thakral, Selders, & Vera, 2009; Finn & Rock, 1997; Finn & Voelkl, 1993; Finn & Zimmer, 2012; Goodenow, 1993; Goodenow & Grady, 1993; Osterman, 2000; Van Ryzin, Gravely, & Roseth, 2009; Voelkl, 2012).

Reviews of these two kinds of affective engagement studies yield convergent findings. Above all, research finds that students are not on “automatic pilot” when they are at school. Their feelings and emotional attachments matter. For example, students who are attached to the people at school are more motivated to pursue and complete academic tasks than students who lack similar school attachments (Dornbusch, Erickson, Laird, & Wong, 2001; Smith et al., 2012; Voelkl, 2012). More fundamentally, students without such emotional connections are less engaged, and as they get older, they may experience behavioral challenges, including attendance and disciplinary problems (Finn, 1989; Finn & Zimmer, 2012).

Cognitive Engagement

Studies of students’ cognitive engagement typically focus on students’ psychological investments in academic tasks (Fredericks et al., 2004). Some of this research focuses directly on students’ dispositions toward school work. Examples of these dispositions include the effort students generally exert toward homework (e.g., Birch & Ladd, 1997) and the extent to which they persist when academic work is difficult (Corno, 1993).²

In contrast to research that examines students’ thoughts *about* school, other research examines students’ cognitive engagement *while they participate* in learning tasks. These studies of students’ “in-the-moment” cognitive engagement (i.e., cognitive engagement states) typically describe the ways in which students think deeply about ideas and concepts, how they make meaning of the material presented to them, and how they use self-regulating and metacognitive strategies to master academic content and tasks (e.g., Cleary & Zimmerman, 2012; Corno, 1993; Lam, Wong, Yang, & Liu, 2012; Pekrun & Linnenbrink-Garcia, 2012; Pintrich & De Groot, 1990; Pintrich & Garcia, 1991; Pintrich, Wolters, & Baxter, 2000).

Newman and Wehlage (1993) describe students with high levels of cognitive engagement as exhibiting what they call “authentic achievement.” They suggest that highly engaged and intrinsically motivated students take a particularly disciplined approach toward learning that extends beyond a desire to simply understand class content and/or receive a better grade. Csikszentmihalyi (1999) describes these combined states of emotional and cognitive engagement as indicative of “flow experiences.” When students experience states of flow, they become so intently engaged cognitively and emotionally, they lose awareness of time and space.

Behavioral Engagement

Research on behavioral engagement is particularly broad, reflecting the diverse interests and theoretical perspectives of engagement researchers. For instance, some research on behavioral engagement focuses on student conduct as a key predictor of students’ educational attainment outcomes (Finn & Zimmer, 2012; Griffiths, Liles, Furlong, & Sidhwa, 2012; Rumberger & Rotermund, 2012). Some of these studies examine prosocial conduct indicators, such as the amount of time

students spend on homework (Finn & Voelkl, 1993) or the extent to which students comply with school rules (Birch & Ladd, 1997; Finn, Folger, & Cox, 1991).

Other studies, especially those associated with the school drop-out literature, employ measures of student conduct indicative of *behavioral disengagement* (Rumberger & Rotermund, 2012) or *disaffection* (Skinner et al., 2008). These measures include individual rates of student absenteeism, suspensions, and class-cutting (Finn et al., 1991; Finn & Rock, 1997; Finn & Zimmer, 2012; M. Johnson, Crosnoe, & Elder, 2001; Rumberger, 2011). In general, studies that employ conduct measures as primary predictors of student outcomes conclude that students with conduct problems are more likely to experience poor educational and social outcomes than students whose behavior better fits the norms and expectations of school (Bowers et al., 2011; Finn & Zimmer, 2012; Henry, Knight, & Thornberry, 2012; Rumberger, 2011; Rumberger & Rotermund, 2012). Of course, any such conduct problems can be connected to behavioral engagement needs, suggesting that behavioral engagement may represent a key mechanism for attenuating the challenges of student disengagement and disaffection (Henry et al., 2012).

Ongoing Operational Puzzles and Challenges

Although the research literature generally defines student engagement as consisting of three primary indicators or dimensions (affective, cognitive, and behavioral), researchers differ with respect to how these variables are conceptualized, analyzed, and/or included in their research designs. In fact, the majority of quantitative studies on student engagement employ just one dimension of student engagement in their analytic models (Fredericks et al., 2004; Fredericks & Eccles, 2006b). Studies that incorporate two or more engagement dimensions are unusual.

One potential reason for the present divide between extant engagement theory and research can be traced to challenges regarding measurement and statistical methodology. Because engagement's indicators or dimensions tend to load as different factors or constructs in survey research (Betts, 2012), the analytical treatment of engagement as a meta-construct requires researchers to fit multiple factor models in the same study. As research indicates, not only may these multifactors fail to "behave" as nicely or neatly as researchers may desire, in some studies, they may not fit the data at all (Samuelson, 2012). Moreover, even when researchers have been successful in fitting multifactor measurement models in research studies, those models may not yield results that support researchers' theoretical ideals (e.g., Green et al., 2012). Thus, key aspects of engagement and its theoretical development remain challenged by issues related to measurement as well as researchers' capacity to fit and/or analyze engagement-relevant constructs (Samuelson, 2012).

Perhaps in response to the difficulty posed by statistical measurement and analytic specification, some researchers have argued that engagement and its diverse indicators/dimensions should be understood and analyzed with respect to a particular temporal order. These studies typically proceed with the view that measures of students' social attachments and/or their identification with school, as well as the effort and persistence students exhibit toward school tasks, are representative of factors that should be treated analytically as *facilitators of engagement*. These facilitators refer to the factors "outside" of the engagement construct (Finn & Zimmer, 2012; Skinner et al., 2008), namely, they are external to engagement even

though they influence it. These studies generally conclude that students engaged successfully and effectively at the beginning of an academic year remain engaged throughout, whereas students who start disaffected, or become so, maintain or increase their disaffection by the end of the academic year (e.g., Green et al., 2012; Skinner et al., 2008).

In contrast to this attachment → engagement → outcome specification, other researchers proceed with the view that in some cases, students' needs for engagement may precede enhanced motivations to learn. This view tends to prevail when engagement is defined behaviorally with respect to participation. One line of this behavioral research prioritizes the development of new social setting designs for classrooms and the social spaces developed inside them (e.g., Tseng & Seidman, 2007). Facilitated by new setting norms for student-to-student and student-teacher interactions, participation and engagement are the initial priority. Once students are active, students' intrinsic motivations to learn are conceptualized as co-occurring phenomena, or alternatively, as proximal outcomes, namely, context → engagement → motivation.

A third and final challenge involves needing to better specify and integrate the various social ecologies in which engagement occurs. For instance, the units of analysis in the dominant line of student engagement research are classroom, student, and teacher. Here, engagement—or the lack thereof—can be attributed to classroom designs and ecologies, student orientations and actions, teacher orientations and actions, or some combination. Unless otherwise specified (e.g., Reeve, 2012), it is tenable to assume that much research to date has been conducted in industrial age schools with conventional classrooms in which teachers work alone. Some of this research is subject specific (e.g., research conducted in high schools) and some is not (e.g., elementary schools).

In brief, the ongoing diversity facing academic and classroom engagement research is unavoidable, and it is not automatically undesirable. For conventional, variable-centered engagement research, one key to better operational clarity and precision is to better unpack the “black box” of students’ classrooms (and the relations between them). Another is to explicitly highlight the presumed direction and/or relationship among constructs, including the testing of alternative sequences/specifications for different subpopulations of students. This is one reason why agreement is growing that precise specifications are needed in every study regarding which view of engagement is operative (perhaps referencing alternatives), how a particular conceptualization influences theory articulation, and the research design decisions made on the basis of the preferred conceptualization (Appleton et al., 2008; Eccles & Wang, 2012).

Other Settings for Engagement and the Need for Companion Concepts

Although much of the extant research reviewed previously examines engagement in classroom settings, for example, their *classroom or academic engagement*, some researchers have broadened the lens of engagement research to include non-classroom settings and more expansively, non-school settings. They address two important questions. To what extent are students engaged in formal school activities, especially before- and after-school activities? And, what is the relationship between engagement in these settings and academic/classroom engagement?

Researchers use the concept of *school engagement* to investigate student involvement in school-sponsored and -related activities (Fredericks et al., 2004). Unfortunately, for some researchers, school engagement has been a catch-all concept, encompassing academic and classroom engagement in some cases and, in other cases, conflated with one or both (Reschly & Christenson, 2012). This definitional imprecision has contributed to the previously identified conceptual confusion in the extant literature. For this reason, it is recommended that school engagement be viewed as extra-classroom energy in action, observable and measurable in school-sponsored activities and tasks. This analytical precision and separation enables the study of relationships between classroom engagement and school engagement as well as the lack of school engagement and disaffection in classrooms and with school overall.

In these school engagement studies, researchers commonly examine activity variables such as student participation in interscholastic athletics, student government, school-based music and arts programs, and school clubs, probing for relationships among these activity variables and students' outcomes (Bartko & Eccles, 2003; Eccles & Barber, 1999; Fall & Roberts, 2012; Fredericks, 2012). These activities typically are presented in shorthand as ECAs—extracurricular activities.

The theoretical rationale is as follows. When students participate in ECAs, they may garner social competencies and resources, which foster school connectedness and academic success (Jordan & Nettles, 1999; Knifsend & Graham, 2012). Examples of the resources students are thought to gain through ECAs include increased student access to adult role models at the school (Troutman & Dufur, 2007); enhanced connection to peer groups that may support students' identities, interests, and goals (Fredericks & Eccles, 2005; Ream & Rumberger, 2008); and opportunities to develop and practice competencies related to collaboration, time management, and self-discipline/regulation (Larson, 2000; Larson, Hansen, & Moneta, 2006). All such resources have the potential to impact students' emotional, cognitive, and behavioral engagement in school.

A special theoretical possibility and research opportunity was identified by Stanton-Salazar (2001), especially in view of the critically important role of teacher social support and teacher-student relationships for academic/classroom engagement (e.g., Spilt et al., 2012). Stanton-Salazar emphasizes the importance of what he calls "multi-stranded relations" involving teachers and students. Examples of multi-stranded relations include classroom teachers who also serve as the same students' athletic coaches and teachers who serve as their students' club advisors, drama coaches, band leaders, and music teachers. School engagement researchers and academic/classroom researchers thus have timely opportunities to develop new conceptual frameworks and more expansive research designs that address these important relationships, the dynamics they enable, and the unique outcomes they may yield.

Youth-Community Engagement

An identifiable category of behavioral engagement studies extends engagement research outside of school. This research emphasizes out-of-school time (OST) and especially family and community settings for youth development. Unfortunately, there is some conceptual confusion involving school-based and -sponsored after-school programs (e.g., Community Learning Centers), which qualify as school engagement, and non-school organizations, settings, and activities in

neighborhoods and communities, including families and extra-school peer groups. Future research will be improved with clearer conceptualizations and more precise specifications of relationships and interactions between school engagement and extra-school engagement.

In our view, studies of extra-school forces and factors can be labeled *youth engagement in community settings*, abbreviated as youth-community engagement to emphasize that this engagement occurs in extra-school settings and during out-of-school time. These studies examine how the opportunities and resources available to students during out-of-school time influence students' school experiences and outcomes. Interest resides in the influence of extra-school peer groups, homes, neighborhoods, and community agencies. The effects of OST programs and services on school orientations, experiences, and outcomes is a growing priority (Berliner, 2009; Mahoney, Vandell, Simkins, & Zarrett, 2009; Vandell et al., 2005; Weiss, Little, & Bouffard, 2005).

Although the precise mechanisms for how these extra-school, community-based programs may contribute to students' school engagement, classroom engagement, and school outcomes are still being investigated, one promising line of research draws on theories of positive youth development. This line of research typically emphasizes and measures six important developmental competencies: competence, confidence, connection, character, caring and compassion, and contribution (Lerner et al., 2005; Roth & Brooks-Gunn, 2003; Theokas et al., 2005).

Generally, this line of research indicates that youth who develop and/or possess the six Cs through OST programs are less likely to develop risk-taking behaviors that may threaten their social-educational development, well-being, and success in school (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002). However, researchers also caution that participation in OST programs does not necessarily guarantee the development of the six Cs. In brief, program quality matters (Smith et al., 2012). For example, the literature implicates program participation variables such as the amount of time students participate in OST programs in each day (frequency), staffing quality, affective bonds between young people and adults, and frequency, intensity, and duration of their participation as important linking mechanisms for OST program participation and educational achievement and attainment outcomes (Bohnert, Fredericks, & Randall, 2010; Fredericks, 2012; Gardner, Roth, & Brooks-Gunn, 2008).

All such beneficial relationships in extra-school settings, especially the developmental assets stemming from community youth engagement, need to be conceptually and operationally linked to identical and comparable frameworks for school engagement and academic/classroom engagement. Apparently, there is considerable overlap and complementarity in these three kinds of engagement. Unfortunately, the enormous potential deriving from a synthesis and possible integration of these research-based, theoretically sound perspectives has not been unleashed because the three lines of scholarship have not yet been adequately connected and integrated (Eccles & Wang, 2012). Social-ecological frameworks offer one mechanism for this all-important integration.

Toward Social-Ecological Frameworks

The settings implicated in these three different forms of engagement (classroom/academic, school, and youth-community) span students' social life worlds. When

examined holistically and inclusively, they frame a social-ecological view of student engagement, one that closely mirrors Bronfenbrenner's (1979) classic, ecological systems framework and today's social ecological theory (Ungar, 2011).

In this framework, students' engagement in one ecological sphere of engagement (academic, school, youth-community) is thought to influence—and in some cases may be conditional upon—their engagement in others (Knifsend & Graham, 2012; Lee, 2012; Ream & Rumberger, 2008; Smith et al., 2012; Wylie & Hodgen, 2012). Perhaps above all, this ecological view takes researchers, practitioners, and policymakers outside the school to examine how students' engagements in external social settings may influence whether and how they engage in particular schools and classrooms at any given point in time. This perspective is especially important for researchers interested in how engagement increases, persists, and declines over time (especially over the course of their educational careers). For example, it may illuminate how students' initial involvement paves the way for active (i.e., agentic) engagement at school and also how once-engaged students may later merely show up and, in essence, go through the motions (involvement), perhaps on the way to excusing themselves altogether (Rumberger, 2011).

Empirical support for a socio-ecological conception of engagement is available. For instance, where students' academic engagement is concerned, social-cultural researchers have long demonstrated that across all social and cultural backgrounds, children and youth engage in important literary events in their homes and communities (Heath, 1982; Phelan, Davidson, & Yu, 1998; Polman & Miller, 2010). However, this same research shows that only certain forms of literary practices and events are privileged by contemporary American schools (Heath, 1982; Polman & Miller, 2010). In brief, these social-cultural studies serve as reminders that student engagement in one setting (e.g., home) can greatly influence the range of social-educational experiences and opportunities they enjoy (or not) in others (Barton et al., 2013; Wylie & Hodgen, 2012). Thus, to the extent that research aims to generate theoretically enhanced practice and policy frameworks, engagement research policy and practice will benefit from additional specifications involving the processes and acts of student engagement, including a more precise understanding of its surrounding social-ecological characteristics and influences.

Exploring Engagement as a Dynamic Synergistic Process

The previous analysis introduces the dynamic conception of a *social ecology of engagement*, with the implication that research needs to attend to its accompanying nuance and complexity. This same research need can be derived from another special genus of engagement research, one that frames engagement as dynamic, social, and synergistic *process*. In this process-oriented conceptualization, engagement is defined by a host of recursive elements (e.g., Peck, Roeser, Zarrett, & Eccles, 2008). These elements reflect a complex set of interactions and transactions between people and their social environment (Eccles & Wang, 2012; Peck et al., 2008).

Such synergistic theories of student engagement may be introduced by the *participation-identification* and *frustration/self-esteem* model highlighted in the work of Jeremy Finn (1989). In his pioneering review of the drop-out literature, Finn suggests that student engagement is often fundamentally shaped by students' early school experiences. In Finn's view, students who experience initial success

in school (and positive interactions with the institutional agents of school) come to develop positive dispositions and identities toward school. In turn, he suggests that students with positive dispositions tend to participate more in school activities. School success derives from the intersection between positive school-related dispositions and high levels of student participation in school (Finn & Zimmer, 2012).

Conversely, students who do not experience early school success are thought to experience different educational (and engagement) trajectories. Although early student success is thought to help students identify with and participate in school, early school difficulty is thought to contribute to a cumulative cycle of student frustration, low self-efficacy, and low self-esteem (see also, Alexander, Entwistle, & Dauber, 1993). Thus, when students do not achieve early school success, they are thought to gradually withdraw from active participation (including engagement) in school activities. Over time, students' lack of participation in school weakens their identification with school, debilitates their academic self-esteem and self-concept, erodes affiliations with prosocial peers (Ream & Rumberger, 2008), and eventually reduces their chances of completing high school (see also, Alexander, Entwistle, & Horsey, 1997; Alexander, Entwistle, & Kabbani, 2001; Rumberger, 2011; Shunk & Mullen, 2012).

Complementing Finn's work on how the social environment influences engagement and disengagement processes, nascent research in adolescent development shifts the influence of the social environment from the background to the foreground (e.g., Lerner et al., 2005; Mahoney, 2000; Mahoney, Cairns, & Farmer, 2003). Here, studies that employ frameworks known as developmental contextualism (e.g., Lerner et al., 2005) and holistic interactionism (e.g., Mahoney, 2000) frame student engagement as a complex interplay between students' activity involvement, competencies, dispositions, and expectancies and their surrounding social environment (see also, Bempechat & Shernoff, 2012; Betts, 2012; Skinner & Pitzer, 2012). These theories also implicate a dynamic and synergistic process, and they can be interpreted as recommending a transactional conceptualization of engagement.

Figure 1 presents such a transactional view of student engagement. In this view, engagement is thought to involve four central elements, which can be referenced as the "ABCs" of the engagement process. They are acts of engagement, benefits/competencies (and/or consequences) of engagement, conditions and contexts of engagement, and dispositions and drivers of engagement. Each of these components are linked by a temporal dimension, time, which is noted at the bottom of the figure. A detailed analysis of each follows.

Student Acts of Engagement

Pursuant to the ecological model of engagement advanced in Figure 1, the idea of an act of engagement refers to the various *states of experience* of individuals *as they participate* in discrete activities at particular moments in time. These states can range from all-encompassing flow-like experiences (e.g., Bempechat & Shernoff, 2012; Pekrun & Linnebrink-Garcia, 2012) to more passive and/or deactivating states like boredom or disinterest (Pekrun & Linnebrink-Garcia, 2012). Significantly, these states of experience extend beyond students' emotions. These states also include the indicators of behavioral and cognitive engagement identified earlier in the review (see also, Fredericks & McColskey, 2012).

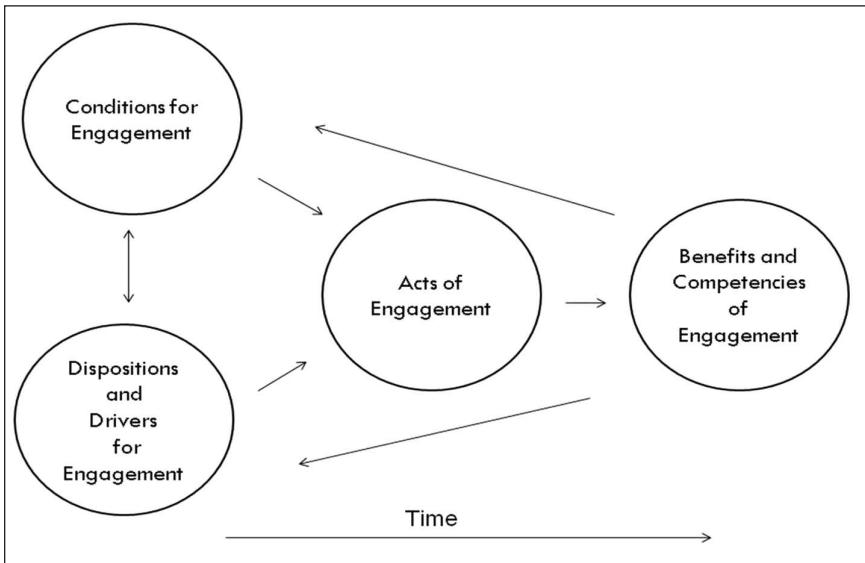


FIGURE 1. *Basic, transactional model of student engagement.*

Notwithstanding the strengths and utility of conventional indicators of engagement, our review suggests that several other indicators of engagement merit more attention, and other researchers agree (Eccles & Wang, 2012; Wentzel, 2012). In the next section, we describe these indicators as representative of the attentional, positional, and social-cultural features of engagement. Our purpose here is to describe and advance their importance, paving the way for a more holistic framework for engagement research, especially research focused on vulnerable student populations.

Attentional Acts of Engagement

Researchers who examine student engagement through a sociocultural lens often offer alternative definitions of engagement than what is found in mainstream engagement research. Two such conceptualizations are especially salient. The first depicts engagement as the conceptual glue that links students to activity and its surrounding social contexts (Hipkins, 2012; Reschly & Christenson, 2012). The second situates engagement within the ecology of social relations (Pianta, Hamre, & Allen, 2012). Both of these definitions and conceptualizations call into question the temporal order of engagement-related processes and events. Both also give rise to important questions regarding whether engagement- and motivation-related constructs can or should be considered separately or whether they represent co-occurring phenomena that operate within a broader system of socio-psychological, sociocultural, and sociological variables and/or processes (Crick, 2012; Janosz, 2012).

In keeping with the framework highlighted in Figure 1, our review suggests that students' prior affective, cognitive, and behavioral attachments may often predict

their “in time” or “in-the-moment” engagement experiences (Finn & Zimmer, 2012; Skinner & Pitzer, 2012). This assumption is depicted in Figure 1; it is represented as the arrow that connects students’ dispositions to their “acts of engagement.” In addition, Figure 1 reflects research indicating that students’ attachments, including their classroom engagement, may be influenced by surrounding conditions and contexts (Reeve, 2012). Together, these assumptions serve to represent the causal logic of much of the engagement research described earlier, namely, the context → motivation → engagement → outcome (temporal) sequence.

Beyond the preceding logic, Figure 1 reflects research findings that in some cases ecological factors and influences, including school climate (e.g., Chen & Vazsonyi, 2013), may actually mediate the association between students’ dispositions/attachments and their engagement. This motivation → context → engagement → outcome progression is particularly evident in qualitative studies of John Ogbu’s (1995) cultural-ecological model. Too numerous to review in detail, these studies describe how, in some cases, academically motivated minority students may disguise and/or limit their academic engagement based on surrounding peer cultures, collective cultural/racial identities, as well as cultural mores and frames of reference (Carter, 2006; Ogbu, 1995). Importantly, this same line of research also details how peer cultures, especially those that promote school success as a part of collective cultural/racial identity, can more positively mediate the link between motivation and engagement for historically vulnerable minority populations (Carter, 2006; Horvat & Lewis, 2003).

In our view, both kinds of research findings highlight needs for researchers to better attend to the objects of students’ social attachments, engagement, and attention, namely, their *attentional engagement* (see also, Pekrun & Linnebrink-Garcia, 2012). As research indicates, students’ attentional engagement may include several units of analysis, reflecting a complex and nested arrangement of social-ecological features and processes. These nested features include student’s engagement with various tools/objects/technologies (e.g., computers), tasks (e.g., labs/assignments), activities or disciplines (e.g., dance or math), people (e.g., peers, teachers, coaches), and places/social settings (e.g., school or community agency).

Importantly, research suggests that the relationship among these nested features may differ depending on the subpopulation under study and the surrounding organizational context (Eccles & Wang, 2012; Janosz, 2012). For instance, recent research indicates that some students may be highly engaged in multiple subjects, including mathematics, reading, and science, as long as technology is a part of the classroom activity (Dockter, Haug, & Lewis, 2010; White & Pea, 2011). For others, the use of particular technologies may be useful for some subjects like math (e.g., White & Pea, 2011), but less useful in others, like language arts (e.g., Guthrie, Wigfield, & You, 2012). In still other cases, an exclusive reliance on object-oriented forms of engagement, such as activity derived from the now popular Khan Academy website (www.khanacademy.org), may inhibit the engagement of some students if the use of technology comes at the expense of needed social interaction with peers and/or teachers (Yazzie-Mintz & McCormick, 2012).

Significantly, our review of extant research reveals important differences in attentional engagement among particular populations of students (Nasir, Jones, & McGlaughlin, 2011). When these differences are foregrounded and assumptions about wholesale scientific generalizability are tempered, there is promise for better

theorizing as well as enriched evaluations of how learning might be better fostered within and across multiple learning environments and settings. In fact, understanding the objects of students' attentional engagement holds promise for better understanding how engagement works (e.g., Connell, Spencer, & Aber, 1994; Sannino, Daniels, & Guitierrez, 2009), at the same time enhancing intervention research aimed at preventing disengagement mechanisms and outcomes.

Positional Acts of Student Engagement

One of the challenges to developing responsive and ecologically valid understandings of student experience is to adequately capture what is called *students' positionality* (e.g., Rogoff, 2003). Students' positionality refers to who students are and what they do in relation to a particular engagement activity, in specific social contexts, at any given point in time. Positionality, in short, entails specifications of how person-activity-environment interactions vary over time and with changing situations.

Our review suggests that students' *positional engagement* carries special import for engagement theory and research, and Crick (2012) agrees. Crick suggests that students internalize contextual influences and dynamics as they engage in activity and also that the process and means of doing so (internalizing features of the environment) reflects and reinforces students' social standing and positionality (see also, Nasir et al., 2011; Tate, 2012). Thus, a key analytic and methodological challenge facing engagement researchers, particularly quantitative researchers, is to better understand how different forms of positional engagement might contribute to important variations in students' educational experiences and outcomes.

To illustrate the importance of students' positional engagement, consider students' positionality in a classroom setting characterized by didactic forms of pedagogy (after Reeve, 2012). In this typical classroom, teaching and learning occurs in a unidirectional fashion and in accordance with culturally inscribed and proscribed scripts and roles for teachers and students. The teacher stands at the head of the classroom and students are expected to sit quietly and attentively until they are called on to answer a question. Called variously "transmission teaching" and/or "drill, skill, and kill" teaching in the educational research literature (e.g., Zwaagstra, Clifton, & Long, 2010), these industrial age pedagogical approaches frame student engagement as something that is inherently passive and needing to be stimulated by a teacher.

Pekrun and Linnenbrink-Garcia (2012) characterize the engagement fostered by these pedagogical environments as procedural. Alternatively, Crick (2012) describes them as compliance oriented. We follow Crick's lead in referring to these more passive forms as *compliant engagement*, but with the warning that this form of engagement carries a static quality.

Beyond compliance to agentic engagement. In contrast to static, compliant engagement, recent research by Reeve (2012) and others (Brooks, Brooks, & Goldstein, 2012; Crick, 2012; Hipkins, 2012) highlights other more authentic and action-oriented (e.g., behavioral) forms of engagement. For example, Reeve (2012, p. 161) describes students' active contribution to teaching and learning practices as indicators of what he calls "agentic engagement." This agentic engagement is

manifest when students actively express their thoughts, opinions, and interests during activity (Ainley, 2012; Assor, 2012; Brooks et al., 2012; Hipkins, 2002); when they direct their own learning (Cleary & Zimmerman, 2012; Reeve, 2012); when they engage communally, collectively, and critically with others (Davis & McPartland, 2012; Mahatmya, Lohman, Matjasko, & Farb, 2012; O'Conner, Hanny, & Lewis, 2011; Polman & Miller, 2010); and when they use culturally relevant tools and technologies (Dockter et al., 2010; Mitra & Serriere, 2012).

Importantly, research indicates that agentic forms of engagement are more naturally related to the participatory ethos of minority cultures and groups (Rogoff, 2003). Agentic forms of engagement also appear to lead to the types of skills and competencies (creativity, innovation, collaboration, and critical thinking) prioritized by 21st-century labor markets (Crick, 2012; National Research Council & Institute of Medicine, 2004). Moreover, in a recent survey of South Korean students, Reeve and Tseng (2011) found that agentic engagement, when entered along with indicators of students' affective, cognitive, and behavioral engagement, fully mediates the relationship between motivation and academic achievement. Although more research is needed on these emergent relationships with other student populations, these initial findings highlight the importance of attending to students' positionality in understanding student engagement processes and outcomes (e.g., Brofenbrenner, 1979).

Social-Cultural Acts of Student Engagement

The preceding discussion of the attentional and positional features of engagement highlights needs for a more nuanced and less formulaic approach to engagement research policy and practice. However, other social-cultural and social-psychological variables and constructs can also be used by researchers to help further describe and qualify variations in student experiences and learning outcomes. In this section, we highlight three related indicators of students' *social-cultural engagement* that help augment mainstream conceptions of students' affective and cognitive engagement.

The first of these indicators is *cultural congruence*. Cultural congruence refers to the degree to which students experience support for their social-cultural and personal identities *while participating* in activity (e.g., Oyersman, Johnson, & James, 2011). Students' experiences of cultural congruence are important for engagement research because studies are increasingly conceptualizing engagement as an important component of students' positive identity constructions (Bingham & Okagaki, 2012; Crick, 2012; Eccles & Wang, 2012; Oyersman et al., 2011). Cultural congruence is also present in studies that associate students' school-related identity conflicts (e.g., experiences of *cultural incongruence*) with student disaffection, disengagement, and over time, dropout (Finn & Zimmer, 2012; Ogbu, 1995; Ream & Rumberger, 2008).

A second and related sociocultural indicator of engagement is relevance, referred to here as *cultural relevance* because research indicates that students' preferred tools, objects, activities, and settings are typically tied to their social-cultural background (Davis & McPartland, 2012; Dockter et al., 2010). Cultural relevance refers to the emotions and cognitions students experience when activity has personal significance (Guthrie et al., 2012) and practical value (Eccles &

Wang, 2012; Voelkl, 2012). Significantly, sociocultural research has identified students' experience of (content/activity) relevance as an indicator of students' deep academic engagement (e.g., Crick, 2012).

A third sociocultural indicator of engagement is *cultural correspondence*. Cultural correspondence refers to the extent to which a particular task, activity, or setting socially and/or cognitively *activates and/or connects with* students' prior knowledge and experience. This sociocultural indicator of engagement is especially important for students whose cultural/literacy practices and indigenous knowledge are often not well supported by mainstream schooling (Heath, 1982; Lave, 1997). Research indicates that the engagement of these students may be explained apart from their motivations to do well in school; it may depend on the extent to which instruction and other contextual features help students transfer their indigenous experience and knowhow into formal academic structures (Crick, 2012; Dockter et al., 2010; Rogoff, 2003; Vygotsky, 1978).

When viewed in the round, these social-cultural features and dynamics appear suggestive of an important sequence of engagement-relevant indicators and events. In this sequence, context serves to mediate the relationship between motivation and engagement, and engagement is indicated by the *social and/or cognitive transfer* of students' prior knowledge and experience into new forms of knowing and/or doing (e.g., Crick, 2012; Ladson-Billings, 1995). Significantly, research indicates that this particular sequence of engagement-relevant events can contribute to more enduring, long-term school attachments, including the dispositional orientation that school supports students' identities, interests, and long-term goals (Freire, 2006; Gonzalez, Moll, & Amanti, 2005; C. D. Lee, 2012; Rumberger & Rotermund, 2012; Tinto, 1994).

Benefits and Competencies of Engagement

Consistent with the conceptual model highlighted in Figure 1, research indicates that the quality of experiences students engender from their attentional, positional, and social-cultural engagement influences the benefits they receive (or not) from each engagement-related act. In the research literature, this relationship between student experience and proximal outcomes oftentimes is either blurred or patently tautological. For example, students who engage in particular activities, at particular moments in time, may experience deep senses of social-cultural connection to the activity or the people and places associated with it. In turn, the short-term benefits or outcomes associated with students' *social/interpersonal or place-based engagement* may lead to longer term enhancements in students' social-cultural connections that, over time, may help sustain engagement.

Green et al. (2012) help to characterize such virtuous cycles. These cycles are reflective of what they call "feed forward effects" (p. 1112). These effects may be categorized according to the different indicators of engagement advanced in this review. For instance, enhanced student senses of belonging and relatedness to peers and/or teachers (Horvat & Lewis, 2003; Osterman, 2000), enhanced social competence (Catalano et al., 2002), collective student engagement (Taines, 2012), positive peer group identity formations (Horvat & Lewis, 2003), and collective student efficacy (O'Conner et al., 2011; Polman & Miller, 2010) may be categorized as the *social-cultural benefits of engagement*. Greater affinity toward engagement activity, including enhanced interest, appreciation, and efficacy toward a

particular activity, subject, or discipline, may be categorized as *affective benefits of engagement* (Kong, Wong, & Lam, 2003; Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2004; Xu, Coats, & Davidson, 2012). And, enhancements in student capacity for self-regulation (Perry, Phillips, & Dowler, 2004; Wolters & Taylor, 2012), volitional control (McCann & Turner, 2004), habits of mind (C. Adelman, 2006), and meta-cognition (Corno, 1993) may be classified as *cognitive benefits of engagement*.

In addition to social-cultural, cognitive, and affective competencies, studies also document a range of behavioral benefits that stem from student acts of engagement. These behavioral competencies range from the prosocial skills described earlier to enhanced student use of explicit learning tools such as social media, film, and technology (Dockter et al., 2010). The literature also documents how engagement may lead to direct enhancements in students' "performance" in activity. Here, activity is an inclusive construct encompassing academics (Connell et al., 1994; National Research Council & Institute of Medicine, 2004), the arts (Ramsing & Sibthorp, 2008), athletics (Amorose & Anderson-Butcher, 2007), and others.

Student Engagement Dispositions

The notion of a "student engagement disposition" rests at the nexus of several important social-psychological theories. For our purposes, we consider an engagement disposition to encompass students' perceptions of the "will" and "skill" they bring to activity (e.g., their social agency). Students' interests and prior experiences are important to these perceptions, and so are their developing identities, especially their possible selves (Oyersman et al., 2011; Snyder, 2002; Taines, 2012; Yowell, 2000). Thus, an engagement disposition can be considered constitutive of a broader system of social-psychological and social-cultural constructs, including students' motivations, attachments, past-present identities and experiences, as well as their aspirations for the future (Cleary & Zimmerman, 2012; Crick, 2012; Finn & Zimmer, 2012).

The transactional framework shown in Figure 1 depicts students' dispositions as drivers for their future engagement experiences (e.g., Dotterer & Lowe, 2011; Henry et al., 2012). However, researchers caution that students' dispositions should not be considered fixed or deterministic. Because students' interests and identities may change throughout schooling and adolescence (Eccles & Wang, 2012), researchers often consider students' dispositions to be malleable. Malleable means that they are amenable to change by intervention (Crick, 2012; Oyersman et al., 2011). "Malleable" also signals that school-desired dispositions are not inherently stable. They may unravel over time, especially when students lack sufficient social supports and resources.

Although students' dispositions (especially their identity-related aspirations) represent an individual-level construct (e.g., Skinner et al., 2008), their development is thought to be highly influenced by engagement's surrounding conditions, cultures, and contexts. As indicated by social-cultural theory, students' lives are influenced by a host of social and cultural forces that require them to co-negotiate and co-construct the social-cultural norms, perceptions, and processes around them (Barron, 2006; Nasir & Saxe, 2003; Ogbu, 1995).

Our review of extant research and theory indicates that *different kinds of engagement dispositions* may develop from these nested features and interactions.

In the following sections, we advance a typology of student engagement dispositions using four social-psychological constructs as primary guides. These constructs are student initiative, student investment, student ambivalence, and student disidentification.

Student Initiative

The first kind of disposition in our typology is represented by the social-psychological construct of student initiative. We use the term *initiative* to describe those engagement dispositions that support the most consistent, persistent, and sustained engagement over time. In this respect, promoting student initiative can be thought of as a normative goal for contemporary engagement research, policy, and practice because it is known to help facilitate short-term and long-term competencies related to creativity, innovation, self-regulation, volitional control, and self-efficacy (Partnership for 21st Century Skills, 2008; Shunk & Mullen, 2012; Wolters & Taylor, 2012).

The idea of student initiative is perhaps most aptly described by the work of Reed Larson (2000), although its tenets are readily apparent in the educational psychology literature on achievement motivation (e.g., Anderman & Patrick, 2012; Voelkl, 2012). According to Larson, students experience initiative when three social-psychological conditions are present. These conditions are intrinsic motivation, constructive attention, and temporal arcs of effort.

In Larson's view, students are thought to gain *intrinsic motivation* when they are interested in a given activity, when they enjoy participating in it, and when activity participation provides ample opportunity to pursue and/or achieve future goals, opportunities, and rewards. When students are intrinsically motivated, Larson suggests a second condition of initiative becomes possible: *constructive attention* (see also, Csikszentmihalyi & Larson, 1984).

The notion of constructive attention refers to the thoughts and efforts students direct toward creating a sense of order within their immediate social environment. According to Larson, constructive attention is best achieved when activities are appropriately structured to meet individual needs for challenge and stimulation (see also, Hipkins, 2012). For Larson, the creation of these structured environments is both central and difficult. When individuals are not challenged, they are not able to maintain constructive attention because they get bored (see also, Crick, 2012). In contrast, when the tasks associated with activity are too challenging or complex, the achievement of constructive attention may also prove difficult, especially if a student's anxiety and/or frustration limits his or her capacity to achieve optimal states of engagement, concentration, and/or flow.

A third condition for initiative involves what Larson refers to as *temporal arcs of effort*. Temporal arcs of effort refer to the concentrated attention that individuals exert over time in relation to an activity, an activity setting, and/or the goals included therein. For Larson, temporal arcs of effort reflect the extent to which individuals consistently modify and/or reevaluate their efforts and strategies in pursuit of ongoing goals, tasks, and (intrinsic) rewards.

In Larson's view, structured, extracurricular activities provide optimal activity settings for these elements of student initiative. Because extracurricular activities are thought to afford students an opportunity to freely pursue and express their interests (see also, Eccles, Barber, Stone, & Hunt, 2003), students may be more

intrinsically drawn to them.³ Once drawn in, students may develop several important social, emotional, cognitive, and behavioral competencies, including markers of cognitive engagement such as volitional control and self-regulation.

Importantly, research has shown that the competencies associated with student initiative may spill over to other activities and/or activity settings, providing that the context supports students' engagement and initiative (see also, Ryan & Deci, 2009). Here, the literature on agentic engagement and autonomy supportive environments is instructive. When pedagogy builds on students' prior knowledge, experience, and own agency, they may become more able to transfer their existing skills and knowhow to more formal academic structures, making engagement more critical, deep, and enduring over time (Heath, 2012; Hipkins, 2012; C. D. Lee, 2012; Reeve, 2012).

Student Investment

Student investment is generally defined in relation to students' motivational dispositions. Maehr and Braskamp's (1986) pioneering theory of personal investment provides the conceptual foundation. Some researchers have since considered student investment as the extent to which activity participation helps students successfully pursue and achieve future goals, opportunities, and rewards (Jordan & Nettles, 1999; Swanson, 2002). In this view, students may invest in activity—they may find it important to their current and/or future long-term goals—but they may not be intrinsically motivated to participate in it. Thus, the student investment can be viewed as conceptually distinct from student initiative because initiative privileges high levels of intrinsic motivation, interest, and enjoyment (Ainley, 2012).

Our preferred conception of student investment is derived principally from Jacqueline Eccles et al.'s (1983) expectancy value theory (see also, Voelkl, 2012). According to Eccles et al.'s theory, a student's decision to invest in activity is driven by four interrelated factors: (a) attainment value or importance (e.g., the importance students attach to doing well on particular tasks), (b) intrinsic value (the enjoyment students experience as a result of participation), (c) utility value (the usefulness of activity participation toward future goals), and (d) cost (the extent to which participating in one activity may come at the expense of another). A student's decision to invest in activity is therefore predicated on the cost-benefit analyses students conduct relative to each of these factors as well as their own identity constructions and peer group affiliations (Carter, 2006; Horvat & Lewis, 2003; Juvoven, Espiniza, & Knifsend, 2012).

As a consequence of the potential interactions among these important elements, student investment appears to represent a highly contingent and variable result. As research suggests, student investment in academic tasks may occur principally when students internalize external pressures provided by school and/or parents to perform well on tasks such as standardized tests (Anderman & Patrick, 2012; Brooks et al., 2012; Crick, 2012). In other cases, student investment may result from students' perceptions that activity engagement will result in future benefits/rewards, such as students who participate in community service or extracurricular activities because they believe it might assist their college applications (e.g., Swanson, 2002).

Key to this construct is the idea student investment may be specific to particular engagement tasks or domains (Shunk & Mullen, 2012). That is, student investment

in one activity domain (e.g., athletics) may not necessarily result in investments in others (e.g., academics). Student investment may therefore represent a task-specific configuration of students' expectations for success in particular activities or settings (attainment value), their perceptions of the usefulness or importance of engagement (utility value), and the costs/benefits associated with participation and engagement.

Student Ambivalence

Although many educational, social, and psychological theories tend to classify behaviors and attitudes as either positive or negative, some social-psychological theories attend to attitudes and behaviors that fall between the two extremes. Priester and Petty (1996) offer the ambivalence construct to describe this conceptual gray area. Pursuant to psychological theory, feelings and/or states of ambivalence are thought to ensue when students perceive that activity participation involves conflicting thoughts, values, expectancies, and/or allegiances (Ogbu, 1995). These conflicts and ambiguities in turn are thought to create states of ambivalence; that is, states that limit optimal student engagement in activity but may not dissuade students from participation.

In the research literature, ambivalent dispositions tend to reflect complex tensions involving school organization and culture, the diverse identities of the student population, as well as students' ethnic and peer group affiliations. In the education-focused sections of the sociology and anthropology literatures, studies on student ambivalence typically document how differences between school and community norms, practices (including discourse styles), and routines create conflicting allegiances and priorities for low-income and/or working-class students (Eckert, 1989; McLeod & Yates, 2006). In some of these studies, such differences result in student disengagement from school (e.g., Willis, 1977). But in other cases, such as in Prudence Carter's (2006) ethnographic study of Latino and African American high school students, students perceive education as both important and attainable in spite of feelings of deep identity conflicts, racial stereotypes, and racism.

Consequently, ambivalent dispositions may reflect important variants of student experience. Student ambivalence may reflect generalized uncertainty toward schools, schooling, and educational success such as the "In-Betweens" described by Eckert (1989), or it may represent a gateway disposition that eventually trends toward investment in spite of affective dissonance (e.g., Carter, 2006), burn-out (e.g., Eckert, 1989), or discouragement (Phelan et al., 1998). Thus, the study of ambivalent student dispositions calls particular attention both to social-cultural and affective indicators of engagement and the ways in which student thoughts and feelings about the activities, people, and place of school may interact to form diverse educational pathways.

Disidentification

Although the preceding theories help describe how engagement may include different types of dispositions and/or motivations, additional constructs are needed to help describe why students may choose to not engage in particular activities and/or activity settings. In order to describe students' *avoidance or disengagement tendencies*, we draw principally from Claude Steele's (1997) notion of disidentification as a key, guiding construct. According to Steele, student

disidentification becomes normative when three conditions are present (see also, Ogbu, 1995; Rumberger, 2011): (a) Students perceive that their prospects for desired action are poor (low attainment value); (b) students perceive that they lack the interests, skills, resources, and opportunities to prosper; and (c) students perceive that they do not belong in an activity or activity setting.

Theoretically, student experiences of disidentification can either be task specific or global. That is, students may disidentify with one aspect of schooling but not others (as exemplified when students avoid a certain peer group, cut certain classes, or do not participate in extracurricular activities). Or, students may disidentify altogether with the norms, habits, and practices of schooling. Critical to this point is the hypothesis that students who disidentify with selective aspects or areas of school (e.g., students who are bored by certain subjects or activities) may have a qualitatively different set of outcomes than students who disidentify with multiple aspects of student life.

For instance, research indicates that students' engagement with technology and social media outside of school can lead to their disidentification with school practices and pedagogies when schools do not incorporate students' preferred learning tools and learning modalities (Ito et al., 2008). As noted previously, this form of disidentification might be viewed as selective disengagement, provided that students maintain some sort of social-cultural, affective, cognitive, and/or behavioral attachments to school. Yet, as other research shows, disidentification can be more global. These forms are manifest in mismatches between students' individual and/or collective identities and the habits and norms privileged by schools (Barron, 2006; Fordham & Ogbu, 1986; Ogbu, 1995; Willis, 1977). They may also be witnessed when rigid and deficit-based schooling practices lead students to believe that school success is not attainable (Eckert, 1989; Valencia, 1997).

In summary, research on students' dispositions offers fresh insights into the systems that help drive and define students' current and future motivational and engagement tendencies. What's more, in contrast to academic, activity-driven conceptualizations and interventions for engagement, dispositional frameworks emphasize *identity-related drivers* (Oyersman et al., 2011). In other words, who students are and what they want to become (and not become) promise to explicate classroom engagement and its antithesis (disaffection) as well as school engagement. Thus, there is much to be gained by connecting and integrating behavioral indicators of youth-community engagement, school engagement, and classroom engagement with dispositional studies of identification and disidentification. The framework for such integration is provided later in the review.

Conditions and Contexts of Engagement

As described in the previous section, the quality and nature of student engagement experiences and dispositions is often highly conditional upon surrounding organizational conditions and ecologies, namely, factors that are external to the student (e.g., Skinner et al., 2008). Because these forces and factors require their own review, we focus here on three particular factors that we believe merit special attention for research on vulnerable student populations. They are population demography, organizational ecology, and social geography (Galster, 2012; Holme & Rangel, 2012; Tate, 2012; Wells et al., 2012). Together they have immediate import to research on student engagement and its undesirable counterpart, student disengagement.

Population demography refers to the characteristics of students and other key actors in the school and surrounding community. Organizational ecology refers to the internal and external environments for schools and school districts, including schools' relations with other child and family-serving organizations as well as businesses. Social geography refers to the powerful influences and dynamics of place, including the discursive practices associated with places and the identity-bestowing power of place.

In a social-ecological framework, the relations among the three are especially salient, and these relations are ripe with opportunity for engagement researchers, practitioners, and policy advocates. Perhaps above all, together they provide cautions about wholesale generalizability of engagement models and intervention strategies. That is, interactions among population characteristics, school ecologies, and social geography produce important indicators of uniqueness and usher in complex, intervention-improvement contingencies (C. D. Lee, 2012; Wells et al., 2012).

For instance, studies that examine the relationship between the organizational ecology of schools and/or communities and engagement-related outcomes consistently reveal that school and organizational practices matter for engagement (Bryk, Sebring, Allensworth, Luppescu, & Eaton, 2010; McLeod & Yates, 2006). These factors include, but are not limited to, school size (Conchas & Rodriguez, 2008), opportunities for participation in academic and extracurricular activity (Swanson, 2002), academic press (V. E. Lee & Smith, 1999), as well as classroom-level cultures and practices (Hatt, 2012; Wigfield & Eccles, 2000).

What's more, as described earlier, research suggests that classroom environments that are autonomy supportive, especially those that promote students' mastery of classroom content (e.g., mastery goals and expectations), have, on average, enhanced engagement and learning outcomes (Wang & Holcombe, 2010). Theoretically, these engagement-related outcomes are manifest because these environmental conditions tend to facilitate agentic forms of engagement and in so doing, help to foster student initiative (Reeve, 2012). Research also shows that schools that create smaller, more intimate classrooms and learning environments are often more autonomy supportive and tend to be successful in fostering positive school-related dispositions, especially for historically underserved students (Conchas & Rodriguez, 2008; Connell & Wellborn, 1991; Klem & Connell, 2004).

In contrast, researchers have found that schools that create rigid and controlling learning environments are often alienating for students, even across social-class backgrounds (Pope, 2003). Presumably, these conditions lead to suboptimal engagement and learning experiences because they are conducive to the development of passive and compliant-oriented forms of engagement.

For low-income students such rigid and controlling school environments can be particularly isolating and even oppressive, especially when they do not accommodate students' social-cultural identities or needs for social-cultural relatedness. As research shows, rigid, top-down teaching practices that do not accommodate cultural differences often lead students to experience competing allegiances between peer, school, family, and community priorities and forces. Over time, these competing allegiances may severely constrain student engagement in school, heighten ambivalence, and increase disidentification (Eckert, 1989; Fordham & Ogbu, 1986; McLeod & Yates, 2006; Willis, 1977).

In fact, schools that do not connect with and at least accommodate peer, family, and community practices often witness *collective student disengagement*. More than an individualistic phenomenon, collective disengagement is an organizational variable with socializing power. Its socializing power is manifest when schools with high levels of collective disengagement adversely influence the dispositional engagement of students who might initially view school success as both desirable and attainable (Carter, 2006; Fordham & Ogbu, 1986).

Although the notion of collective student disengagement is widely familiar to social-ecological studies of education, research also suggests that the polar opposite, *collective student engagement*, represents an important condition for enhancing the school-related dispositions of individual students. For instance, studies show that when school practices are structured to enable students to actively and collectively deconstruct the social forces and factors they view as oppressive and/or alienating, individual *and* collective student engagement may become more prevalent (O'Conner et al., 2011).

Unfortunately, there are no generalizable formulas for school and district turnarounds vis-à-vis this collective disengagement to engagement phenomenon. For now, research must proceed with a restricted scale, focusing on the often nuanced interplay among population demography, organizational ecology, and social geography.

Exploring the Potential of Full Model Development

When the entire range of these complex processes, interactions, and dynamics are examined holistically and longitudinally, research indicates that students who experience early school success tend to carry positive dispositions and expectancies for their academic work when they reach high school (Finn, 1989). These positive dispositions and expectancies may be accompanied and reinforced by important external conditions, such as equally motivated friends, a high-achieving group of classmates, a teacher with high expectations for student learning, or a combination of some, if not all of these factors. To the extent that students' positive dispositions are met with positive and nurturing social conditions, students may be especially likely to benefit from an appropriate "person-environment fit" (Eccles, 2005). This fit is thought to contribute to positive engagement experiences, positive benefits and outcomes, and positive dispositions/conditions for students' future engagement in school (Eccles, 2005).

On the other hand, when a student's disposition toward an activity does not fit the surrounding social environment, variations in student experiences and outcomes may also be expected. For instance, students with positive dispositions and/or expectancies toward academic work may have difficulty engaging in academic activity if their teacher has low expectations for their learning or performance and/or if a student's classmates or peers inhibit their ability to concentrate on academic tasks (National Research Council & Institute of Medicine, 2004).

Of course, the aforementioned illustrations reflect only a few of the possible dynamics that may play out in single classroom or ECA settings. In short, this simple model may be the most useful for exploring children's early school experiences, since young children spend most of their school day in one classroom or homeroom.

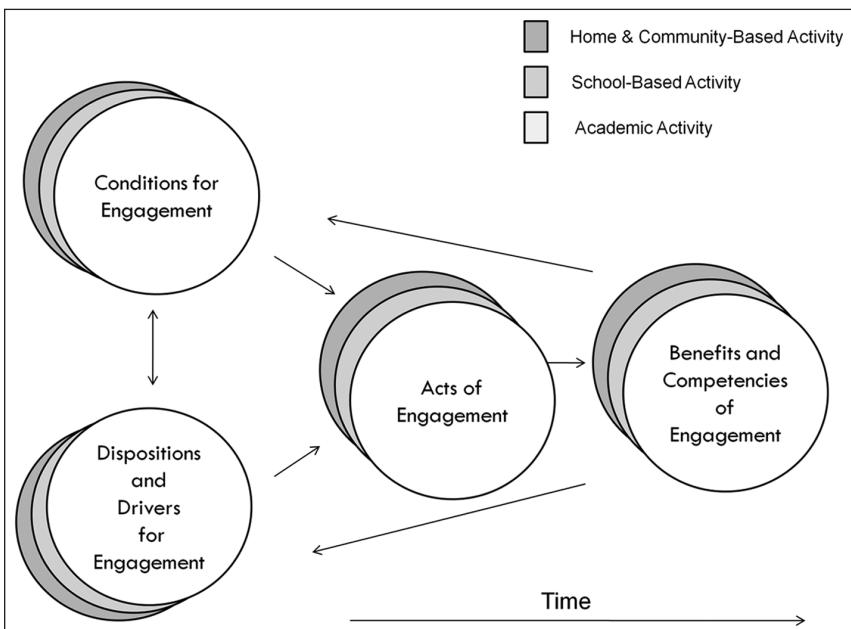


FIGURE 2. *Multilayered, transactional model of engagement.*

However, this model may hold less relevance for high school students whose social and educational worlds are more complex, including in-school and out-of-school time. For example, because high school students often attend separate classrooms throughout the day (often with different classmates in addition to different teachers), and because high school students may have multiple opportunities to participate in ECAs (Mahoney & Cairns, 1997), a more global view of their engagement can be considered as a stacked series of social, psychological, and educational processes. An exploratory depiction of this extended multilayered, transactional framework is provided as Figure 2.

As evident in Figure 2, the inclusion of academic, school, and community-based activities and settings into the transactional model invites several additional layers of complexity and variability. For instance, where academics are concerned, students may focus their effort and attention toward one academic course, several courses, or they may be disengaged altogether from their coursework. With respect to students' school engagement, students may engage in one or two school-based ECAs during the school year, others may engage in several, and others may engage in none. Where students' community or youth engagement is concerned, some students may spend their out-of-school time engaging in multiple activities (voluntary or faith-based) in their communities, some students may occasionally engage in community-based ECAs, whereas others may direct their OST toward engaging in unstructured leisure pursuits—such as watching television or playing video games.

These examples reflect only some of the possible ways in which students' activity engagement may be manifest *within* each engagement setting (e.g., academics, school-based ECAs, community-based ECAs). However, when research explores student engagement *within and across* these settings (e.g., Bartko & Eccles, 2003; Linver, Roth, & Brooks-Gunn, 2009; Peck et al., 2008), multiple combinations of activity engagement become plausible. For example, some students may invest their time and energy toward engaging in multiple academic subjects as well as several school- and community-based ECAs. Other students' engagement patterns may be defined by their participation in singular school-based ECAs, unstructured leisure pursuits at home, and occasionally one academic subject. Still others may choose to invest their time and effort toward engaging in singular activities or activity domains, such as academics *or* leisure pursuits *or* ECAs.

When students' dispositions and competencies are added to the mix of possible student activity patterns, the complexity deepens. For instance, some students may derive academically relevant benefits from their engagement in school-based, community-based, and home-based activities, whereas others may not. Moreover, even in cases where students might be expected to develop academically relevant competencies from ECAs or other related activities, some students may not transfer, translate, and/or assert their learned skills and competencies from one setting to another (Heath, 1982; Lave, 1997; C. D. Lee, 2012). Therefore, although students' dispositions, experiences, and competencies in one activity (e.g., math, language arts, or soccer) or activity setting (e.g., academics, school-based ECAs) may "spill over" to others (Larson, 2000), students' activity engagement may also yield task-specific processes and results (Bandura, 1999; Shunk & Mullen, 2012).

Consequently, although much extant work has conceptualized student engagement as something students have more or less of, a more global examination of its complex, nested processes and contingencies suggest something different. That is, instead of viewing and/or measuring engagement as a set of continuous variables that students have more or less of (e.g., measuring "differences in the degree of engagement"), a careful review of extant research and theory suggests that student engagement may be better understood by also examining how it may vary qualitatively, as reflected in the idea of "differences in kind." This subtle but important distinction regarding different *kind(s)* of engagement (e.g., Park, Holloway, Arendtsz, Bempechat, & Lin, 2012) brings to the forefront important questions regarding the latent measurement properties and characteristics of the engagement construct. For example, should engagement be examined as a categorical construct or a continuous set of latent variables?

In response to this important question, the preceding ecological review of the engagement literature suggests that the treatment of student engagement as a categorical construct (or set of constructs) may enable a more nuanced and robust examination of its complex contingencies and process than what is typically yielded in most quantitative studies. By treating engagement as a construct that may vary in type or form as well as degree, researchers may better describe how different configurations of students' attentional, positional, and social-cultural engagement relate to particular types of learning outcomes. This conceptualization is especially timely as engagement researchers shift their attention to long-term, high-quality engagement in cradle-to-career systems, starting with preschool and

persisting through postsecondary enrollment completion and also including dropout prevention (Fall & Roberts, 2012).

Ultimately, our review indicates that by better attending to the complex dynamics and contingencies between and within students' engagement ecologies, researchers, practitioners, and policymakers may become better poised to identify the objects (e.g., technology tools, peers, teachers, social settings) that drive students' engagement choices and/or experiences (Nasir et al., 2011). Presumably, such an understanding would help practitioners and policymakers eschew one-size-fits-all interventions in favor of those tailored to fit local student, school, and community needs, contexts, and cultures.

However, in order for these complex dynamics and contingencies to be revealed, alternative specifications and analytic frameworks are needed. Such needs are especially apparent for cross-sectional survey research. Accordingly, this next section advances one such framework, one that attends to students' social-ecological or global engagement.

Conceptualizing Relationships Between Activity and Dispositional Engagement

The development of enhanced socio-ecological frameworks for student engagement must keep the best of past-present research and theory, especially the focus on schools and what happens inside them and because of them. At the same time, future frameworks must be more expansive and attentive to nuanced dynamics. For example, the next generation of cross-sectional engagement research studies should be sensitive to the interplay between students' activity engagement across settings (e.g., school, youth, and community) and the social-cultural, cognitive, and affective dispositions students derive from their engagement experiences (Appleton et al., 2008; Fredericks et al., 2004).

The initial "measurement model" for a cross-sectional, socio-ecological student engagement research framework should start by depicting and then integrating, at minimum, two central components/dimensions of student experience: (a) students' activity engagement across settings and (b) student dispositions toward the activities in which they participate, including relevant attentional, positional, and socio-cultural indicators.⁴

To date, the extant research literature has only begun to explore the interplay between students' activity involvement in multiple settings, especially extra-school settings, and students' engagement dispositions in school-community life. However, some of the more nascent studies in the adolescent and youth development literatures have advanced an understanding of the relationship between different configurations of students' activity in multiple settings and educational outcomes (e.g., Bartko & Eccles, 2003; Linver et al., 2009; Peck et al., 2008). Across samples, these studies generally show that: (a) Across activity settings, there are patterned regularities in students' behavioral engagement, and (b) some activity patterns carry more predictive currency for educational attainment and advancement than others.

For example, Peck et al. (2008) found that students' activity involvement at home, school, and in the community can be characterized by particular activity patterns or profiles. Specifically, using a sample of 1,350 African American and White youth who participated in the Maryland Adolescent Development in Context study, they conducted cluster analyses that revealed nine distinct profiles of

student activity. Of these clusters, five were sports related, two involved student participation (volunteerism and work) in the community but not at school, one involved non-sports-related activity at school, and the final cluster was characterized by students who largely stayed at home, read, and watched large amounts of television.

In the same vein, Linver et al. (2009) conducted cluster analyses on a nationally representative sample of nearly 1,700 students, ages 10 to 18, who participated in the Child Development Supplement of the Panel Study of Income Dynamics. Their analysis revealed five distinct clusters of student activity at school, home, and community, including (a) a “sports only” cluster, which was defined by high sports participation and lower participation in other activities; (b) a “sports plus” cluster, defined by students who participated in multiple activities including sports; (c) a “school groups” cluster, which included high rates of participation in school activities and lower participation in other activities; (d) a “religious groups” cluster, which participated in faith-based youth groups; and (e) a “low-involved” cluster, which demonstrated low mean levels of participation across all measured activities.

Each of these studies found that students who were involved in sports as well as other school-based activities had better educational outcomes than students who were not involved in school-based extracurricular activities. In particular, Peck et al. (2008) report that youth whose activity patterns were marked by involvement in school clubs, organized sports, and other positive activities (ECAs) had postsecondary enrollment outcomes that were significantly higher than the 56% base rate of their sample population.

In contrast to students who participate in ECAs, students who were engaged either in paid work or were not involved in ECAs had college matriculation rates that were significantly below the sample average. In today’s policy environment, with the premium placed on postsecondary education for human capital development and economic renewal, findings like these have special significance. They illustrate the importance of attending to the person-centered nuances of students’ activity engagement and the ways it may help shape educational outcomes.

Limitations of Cluster-Analytic Studies

Although the cluster-analytic studies reviewed previously offer a more nuanced understanding of how students’ activity engagement may be present for real kids in real schools, needs remain to sharpen our understanding of the dynamics associated with each of the activity profiles identified in these studies. Chief among these needs are studies that facilitate a better understanding of the social-institutional conditions that may accompany particular activity profiles, including those that examine the ways that peer group dynamics and local opportunity structures influence the range of activities available to children and youth. Person-centered analyses of students’ engagement dispositions also stand to enhance extant activity research and theory, since diverse local cultures, contexts, and opportunity structures have been shown to influence each student’s prior knowledge, experience, and competencies in qualitatively different ways (Eccles & Wang, 2012; Heath, 1982; Janosz, 2012; Lave, 1997). In fact, by attending to the ways that different activity profiles may relate to different kinds of student engagement dispositions, activity research can be expanded beyond a strict behavioral orientation to also

include the attentional, positional, social-cultural, affective, and cognitive indicators of engagement.

Selected Implications

Our review commenced with two normative claims. Engagement research, policy, intervention design, and practice should be more nuanced and less formulaic, and these nuanced approaches should be framed in relation to the trilogy of population demography, school ecology, and surrounding social geography. Building on these claims, we have recommended a social-ecological framework rooted in part in Brofenbrenner's (1979) original theory. Our conceptual framework emphasizes the importance of engagement settings (classroom, school, and youth-community), especially their conceptual connections. In so doing, we provide a foreground for interventions and systems design frameworks that address interactions among these settings, with identifiable populations of students attending schools with special ecologies and unique social geographies.

We began our review with appreciation for extant research, starting with the centrality of cognitive, affective, and behavioral engagement indicators and interventions. We proceeded with the assumption that this line of social-psychological research was necessary (i.e., essential and required) but insufficient to improve outcomes for the most vulnerable students. We found support for our search in the recent international handbook. For example, Christenson et al. (2012a) conclude the handbook by emphasizing the need to better understand how student engagement works for particular groups or subgroups of students. In the same vein, Eccles and Wang (2012) emphasize the import of extra-school settings for academic engagement as well as interindividual differences, especially the need to understand how and why behavior, emotion, and cognition develop as coordinated engagement-related processes in some individuals, but also as more disconnected aspects of engagement in others. Janosz (2012) concludes that student engagement in school is more than an aggregate version of classroom engagement. He emphasizes that context matters and recommends research designs that capture the multidimensionality and diversity of engagement-related constructs, processes, and settings (see also, Eccles & Wang, 2012; Reschly & Christenson, 2012).

Until recently, modeling such global conceptions of student engagement was too computationally taxing for most researchers and statisticians. However, because of recent developments and enhancements in statistical software programs, researchers now are able to model and explore population heterogeneity (variation). It is noteworthy that they are able to do so in ways that enable a more comprehensive analysis of student engagement characteristics and correlates, ways that are consistent with the complex conceptualizations offered in this review.

In particular, latent class analysis (LCA), a form of finite mixture modeling, offers researchers a flexible, model-based framework for exploring different profiles of student engagement and its relationship to educational outcomes (see also, M. A. Lawson, 2011). As detailed elsewhere (e.g., Masyn, in press; Muthén & Muthén, 2010; Nylund, 2007; Nylund, Bellmore, Nishina, & Graham, 2007), the LCA approach offers several unique advantages over the cluster-analytic models employed in the activity research literature. Chief among the advantages afforded by LCA is the ability to examine relationships between several measurement models (e.g., student engagement profiles), covariates, and distal outcomes (e.g.,

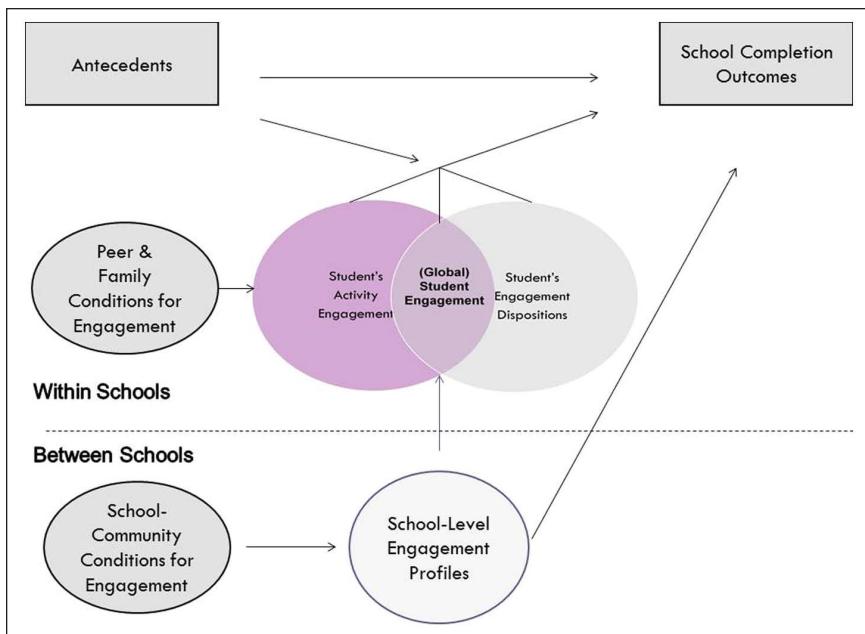


FIGURE 3. Multilevel design framework for “global” student engagement research.

education and/or development outcomes) in the same structural model (Janosz, Archambault, Morizot, & Pagani, 2008; Marcotte, 2012; Nylund, 2007; Nylund et al., 2007; Van Horn et al., 2008). Moreover, the modeling framework conceived and implemented in the M-Plus software program (Muthén & Muthén, 2010) facilitates analyses of multilevel models and profiles, enabling researchers to better model interactions between student engagement/agency and the social organization of schools and/or communities.

A robust multilevel model for global, social-ecological student engagement research is presented as Figure 3. This complete model can be researched as a whole or can be broken down into several studies and/or component parts.

At the center of the model is the primary measurement model for our socio-ecological conception of engagement. This measurement model depicts student engagement as the intersection between two categorical latent variables: (a) profiles of student activity and (b) profiles of students’ dispositions. The box in the upper left of the figure, antecedents, includes exogenous or “status risk” variables (e.g., Finn & Zimmer, 2012) typically included in the engagement research literature, including student race, ethnicity, socioeconomic status background, and previous academic history (e.g., Feldman & Matjasko, 2005; Fredericks et al., 2004; Rumberger & Rotermund, 2012).

Variables that attend to the microlevel conditions that may accompany different types of student engagement are depicted in the center right of the figure. This conceptual block could include measures of individual-level peer and family variables such as peer dispositions and habits related to schools, ECA, and/or OST

activity (e.g., Denault & Poulin, 2009; Fredericks & Eccles, 2006b), as well as variables that measure parent involvement activity at home, at school, and in the community (e.g., Henderson & Mapp, 2002).

The bottom half of Figure 3 includes the “between school” or Level 2 component of the multilevel model. At the center of the figure’s bottom half is another categorical latent variable intended to capture different “school-level profiles” of engagement. This school-level categorical latent variable employs the latent classes identified in Level 1 as observed indicators for school-level profiles. Assuming model identification, the school-level profiles identified at Level 2 would reflect various configurations of student engagement profiles culled at the individual level of analysis, allowing a robust analysis of individual by school profile interactions. So, as a hypothetical example, researchers using this framework might yield three distinct school-level profiles, characterized by: (a) schools with high proportions of students who experience investment and initiative, (b) schools with high proportions of students who are ambivalent and/or disidentify with school, and (c) schools with an even distribution of various student engagement profiles.

At the bottom right of the figure is a circle intended to include school- and neighborhood-level predictors of different school-level engagement profiles. Variables that might be included here include measures of school size, academic as well as social/ECA opportunity, social geography (rural, suburban, urban), population demography, organizational ecology (low-performing school, high-performing school), and so forth.

Finally, on the upper right portion of Figure 3 is a box intended to measure the long-term *educational* consequences of students’ engagement, although depending on the research question, researchers may wish to include social outcomes (delinquency, substance use, employment) or short-term protective factors/competencies. This particular specification affords an analysis of the relative association of student engagement profiles on educational attainment, controlling for the influence of school-level profiles and individual-level antecedents. However, researchers can and should arrange each block of variables, as well as the arrows that connect them, according to the research questions of interest, such as when researchers are interested in how the relations among particular engagement profiles and educational outcomes might be mediated and/or moderated by peer factors or other social influences (e.g., Fredericks & Eccles, 2006a).

Implications for Intervention and Systems Design

Our recommendation for more nuanced, targeted, and population-specific engagement research does not rule out the generalizability of scientific theories or the transferability of universal engagement interventions. However, it does provide just cause for caution because extant theory indicates that engagement is a multi-faceted and contingent phenomenon that often varies according to person, context, place, activity, and time (e.g., Eccles & Wang, 2012; Gasper, DeLuca, & Estacion, 2012; Janosz, 2012; C. D. Lee, 2012; Rumberger, 2011; Tate, 2012). In brief, engagement cannot be prepackaged as a neatly defined technical problem (Heifetz, 1994), where the three main challenges are to find the best intervention, implement it with fidelity, and monitor progress for continuous quality improvement, learning, and knowledge generation.

Our review suggests that such an engagement-as-technical-problem-solving approach has limited salience. In fact, our review indicates that engagement can and perhaps should be viewed as an adaptive problem, one without easy and ready-made intervention solutions (Heifetz, 1994). For this reason, nuanced intervention research guided by new engagement models and strategies is needed, especially efforts that help practitioners and policymakers better understand what engagement-related policies and practices work, for whom, where, under what circumstances, when, why, and for how long (C. D. Lee, 2012).

Granting the enduring importance of research framed by specialized disciplinary perspectives and conducted by a limited number of researchers, our review invites, indeed necessitates, interdisciplinary research designed and conducted by teams. These teams are needed because expansive engagement designs will be difficult for individual researchers to implement. But, when armed with sufficient resources, teams will be able to generate path-breaking knowledge of the relations between and among various engagement ecologies/settings, together with frameworks and specifications for new ecologically driven interventions (e.g., Penuel, Fishman, Cheng, & Sabelli, 2011).

To realize this potential, researchers will need to take better stock of the temporal elements of student engagement, together with how it may vary as a function of particular student subpopulations. As detailed throughout the review, the ways that students' engagement can vary over time, both within and across grade levels and schools, provides important reminders for researchers, policymakers, and practitioners. To begin with, all forms of engagement are developmental projects, and engagement is both an indicator of, and a driver for, whole child development. In the same vein, schools as organizations are vital developmental contexts for healthy children and adolescents (Eccles & Roeser, 2011), not the only one, but surely one of the most important because educators' engagement-related successes and shortcomings have short- and long-term impacts on students' school success. Schoolwide (organizational) engagement interventions thus merit additional exploration, especially ones guided by an engagement-oriented conception of school climate.

At the same time, our review indicates that educators' and schools' ability to exert positive influence and control over students' engagement-related dispositions, cognition, emotion, behavior, and motivation may be constrained by two inescapable realities. Young people spend most of their time in out-of-school contexts. And, family, peer, and neighborhood ecologies, like schools, are powerful developmental contexts for children. The immediate implication: Place-based intervention research is needed, including designs that attend to school characteristics, population features, place-based influences, and their interactions (Wells et al., 2012).

The overall direction for research and development can be readily summarized. When these extra-school influences are harmonized with their school-related counterparts, as they may often be with more economically advantaged students and their families, engagement may be more readily facilitated (Eccles et al., 1993; Eccles & Roeser, 2011). When they are not, as is often the case with the most vulnerable people in the most challenging places, engagement is at least constrained and often prevented (Ream & Rumberger, 2008; Wylie & Hodgen, 2012). Here, then, is a rationale for the socio-ecological framework for engagement

research, one that invites researchers, practitioners, and policymakers to become more person-centered, peer group-centered, school/organization-centered, and place-based (e.g., Shinn & Yoshikawa, 2008).

Several other research and development implications follow, and they have special import for the most vulnerable students and the schools that serve them. Because of space constraints, a few important examples must suffice. A companion analysis provides other new research and development directions (H. A. Lawson, 2012).

The dominant model for school improvement is the first example. It can be characterized as walled in, building centered, school day focused, and controlled almost entirely by educators (H. A. Lawson, 2010b). This design limits educators' engagement-related reach into students' external, social ecologies; impedes access to external, engagement-related social supports and resources; restricts and even prevents collaboration with community health, social service, youth development, and private sector leaders and professionals; contributes to the isolation of teachers, principals, and entire schools; and sacrifices opportunities for comprehensive, coordinated whole child development. Students with urgent developmental needs and/or "noncognitive barriers" to learning readiness (Farrington et al., 2012) have the most to lose with these walled-in improvement models, and schools with significant subpopulations of these students continue to struggle.

Improvement models characterized as partnership models (e.g., H. A. Lawson, in press), community collaboration models (e.g., Anderson-Butcher et al., 2010), multiservice and extended service schools (Dyson & Todd, 2010), and community schools (H. A. Lawson, 2010a) provide alternatives to the dominant improvement model and offer promising opportunities for engagement research, intervention design, policy, and practice. To realize this promise, engagement will need to become an explicit improvement priority. Presently it is not, in part because their improvement discourses tend to focus on health and social services to needy students or perhaps sharing decision-making power and authority with parents, young people, and other local residents (Lawson, 2010a). In our view, these current models might be expanded from the current focus on removing *barriers to engagement and learning* (e.g., H. Adelman & Taylor, 2005), or more narrowly, *preventing disengagement* (Rumberger & Rotermund, 2012), to a more robust targeting of those social-organizational conditions known to facilitate student engagement over time and across activities, people, places, and settings. Such a long view of engagement is especially critical in today's race-to-the-top environment, one in which students must be engaged longer and more deeply.

Student support teams consisting of school-based pupil support professionals and more expansive ones involving community-based health and social service providers stand as prime examples of potential organizational facilitators. These student support teams can use engagement, disaffection, and even the "re-engagement" of once-engaged students as centerpieces in their interprofessional collaborations (H. A. Lawson, 2012). They can help bridge longstanding divides between enhanced learning readiness programs, fundamental priorities such as school attendance and homework completion, and teaching-learning processes (especially teachers' orientations and behavior). Perhaps above all, when engagement and engagement-related priorities are the centerpieces of interprofessional teamwork, engagement-related responsibilities and accountabilities are not placed

squarely and exclusively on the shoulders of classroom teachers. Shared responsibility and accountability for students' academic outcomes follow suit, extending outside the school's walls, prioritizing students' OST, and utilizing peer, family, and community resources for student success.

Youth-community engagement in out-of-school time activities carries particular import for extended school-community improvement, especially those "extended, expanded, accelerated, and connected" strategies that impact the core technology of schools while also developing a comprehensive system of learning supports in the community. Here, Heath's (2012) depiction of science learning under the expert guidance of practicing scientists is particularly instructive. In her work, guided apprenticeship models of instruction (see also, Rogoff, 2003) help facilitate powerful learning because the conditions for collective and agentic engagement are optimized in these extra-school settings. For example, young people shed their roles as students and enact the role of practicing scientists. As a result, they enjoy the kind of curiosity-creating, visual-spatial, and mistake-driven learning experienced by "real world" practitioners (see also, Anderman & Patrick, 2012; Assor, 2012; Brooks et al., 2012). Because student learning is both project- and place-based in these apprenticeship models, students also learn the relationship between science and civic engagement, connecting students to the range of engagement features and settings depicted throughout this review.

Finally, cradle-to-career system building offers manifold opportunities for new engagement frameworks and interventions—with the reminder that postsecondary education completion with advanced competence hinges on active, consistent, and persistent engagement. Here, the big questions offered at the beginning of this review must be revisited. How will three subpopulations of students—those who drop out, those who do not complete high school on time, and those who finish only high school—gain readiness, develop needed commitments, and expand their competence so that they are able to complete postsecondary education? How will they become engaged? Who will help sustain their engagement (Fall & Roberts, 2012)?

These questions are especially salient to the ethnically diverse, low-income students who attend schools and live in neighborhoods where multiple, co-occurring outcome disparities are apparent (Sampson, 2012; Wilson, 2011). To wit: When individuals and entire subpopulations conclude that school and educational pathways and privileges are not open to them—namely, "college is not for people like me"—social exclusion is implicated (H. A. Lawson, 2009), and it carries with it profound implications for student engagement, institutional disidentification, and dropout (Oyersman et al., 2011; Rumberger & Rotermund, 2012; Tinto, 1994). The upshot is that perceived social exclusion is an intervention priority, especially in today's race-to-the-top policy climate. Active, consistent, and persistent engagement is not likely to eventuate until it is addressed, and progress will not be made in relation to the drop-out epidemic until such time as it is targeted, starting in the 1,500 schools dubbed "drop-out factories" (Balfanz & Byrnes, 2012).

Such is the manifest need for engagement-focused systems interventions. Specifically, cradle-to-career systems development—with its emphasis on educational, occupational, and economic opportunity pathways and structures—represents a vertically directed, systems-level approach that, when properly synchronized with existing family and community resources, can combat social exclusion and

other barriers to institutional engagement and identification. One key is whether students perceive these pathways as facilitative of their preferred identities and/or futures (e.g., Oyersman et al., 2011). The other key is a horizontally configured improvement framework that enables educators and their partners to better utilize students' external (non-school) ecologies for positive learning and development. To the extent this happens, cradle-to-career systems interventions may serve to enhance the engagement of the most vulnerable students.

In conclusion, our expansive, social-ecological engagement framework highlights needs for a new generation of engagement-focused research, practice, and policy innovations because it emphasizes powerful peer, family, and community influences outside of school. At the same time, it indicates that even the most gifted and talented teachers, working in relative isolation, may not be able to engage the growing number of vulnerable students alone. All school improvement models with their respective teaching and learning strategies thus stand to benefit from such a social-ecological conception of student engagement, including its implications for interventions aimed at harmonizing and synchronizing extra-school engagement forces and factors. America's success in race-to-the-top may depend fundamentally on this more expansive agenda for engagement research, policy, and practice. If our review contributes to this agenda and facilitates improvements in engagement research, policy, and practice, it has achieved its primary purpose.

Notes

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¹For an especially nuanced review of students' emotions and their relationship to engagement processes and outcomes, see Pekrun and Linnenbrik-Garcia (2012).

²There is disagreement in the literature regarding whether constructs such as "effort" and "persistence" should be considered as behavioral or cognitive manifestations of engagement (Fredericks, Blumenfeld, & Paris, 2004). We choose to emphasize the cognitive aspects of these constructs because we believe that they represent cognitive dispositions toward activity rather than an activity unto itself.

³Research has long established that structured extracurricular activities (ECAs) serve as important magnets for student and youth engagement in school and community contexts (Eccles & Barber, 1999; Feldman & Matjasko, 2005; Larson, 2000). However, as one *RER* reviewer aptly pointed out, increasing pressures for college admission and entry can render ECA participation as something other than voluntary for today's students (see also, Pope, 2003; Swanson, 2002). Readers should therefore be mindful that, pursuant to other areas of this review, any such generalizations regarding the "average" influence of engagement need to be viewed with caution. Even within subgroups, one size does not fit all.

⁴Reschly and Christensen (2012), Finn and Zimmer (2012), Voelkl (2012), as well as Fredericks and McColksey (2012) provide excellent reviews of the most widely used tools researchers have used to measure the affective, cognitive, and behavioral indicators of engagement. However, a few additional words of caution are warranted about the reliability and validity of engagement surveys and instruments. First, as Samuelson (2012) notes, research has found that low-income minority students tend to manifest a neutral response bias when completing surveys, a bias that complicates an understanding of how their engagement may vary by degree. Second, although scores

on some engagement surveys and instruments yield strong internal consistency reliabilities (e.g., Finn & Zimmer, 2012; Voelkl, 2012), the factorial validity and measurement invariance of some of these instruments' scores are not yet well established (Betts, 2012; Samuelson, 2012). Third, when alternative methods such as latent class analysis are employed to explore engagement as a categorical latent variable, the analytic approach used to determine the reliability and validity of those models departs a bit from conventional approaches. In these settings, alternative statistical indicators, such as the Entropy statistic, which measures the quality of separation between latent classes (e.g., Masyn, in press), help researchers evaluate the substantive-empirical, theoretical, and/or practical value of their measurement models.

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